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# PAPER TRADE JOURNAL

With Which Is Combined

Vol. XC, No. 15 — PAPER — Thursday, April 10, 1930

# American Writing Paper Co. Increases Profits

## Annual Report Shows Earnings Increased 31 Per Cent as Compared With Preceding Year—Net Profit of Corporation for 1929 Was $364,432.91—President S. L. Willson Draws Attention to Strong Financial Position of Organization, With Current Assets Approximately Seven Times Larger Than Current Liabilities

HOLYOKE, Mass., April 7, 1930.—The consistent increases in earnings which have characterized each annual report of the American Writing Paper Company, Inc., since reorganization of the company in 1927, are again reflected in the 1929 report, mailed to stockholders last week, showing an increase of 31 per cent. in the 1929 net profits as compared with 1928. The net profit of the company for 1929 was $364,432.91.

### Some Interesting Comparisons

In his letter to stockholders, transmitting the third annual report of the company, S. L. Willson, president, directs attention to the following comparisons between gross sales and profits over the three year period: 1929 sales, $12,134,875.02, with net profts of $364,432.91; 1928 sales, $12,199,044.74, with profits of $277,993.81; 1927 sales, $13,339,530.04, with profits of $149,831.94. Commenting upon this steady increase in profits with decreased gross sales, Mr. Willson says:

### Steady Increase in Profit

"You will note there is a reduction in the gross sales in 1929 against 1927 of approximately $1,205,000. This is due to the elimination of business, which, based on competitive prices was unprofitable. I am glad to say that some of this business has been replaced with lines which yield the Company a satisfactory profit."

Mr. Willson also calls attention to the strong financial position of the company, with current assets of about seven to one as compared with current liabilities. He further cites the fact that no money has been borrowed, all bills have been discounted during the year, all interest charges on bonds and serial notes have been paid when due, and the full cumulative dividend of $3 per share on the preferred stock was paid in 1929. The original issue of serial notes was again reduced $175,000 by payment of that amount at maturity. During the year $749,992.78 was spent for plant improvements, replacement and rehabilitation, and $340,835.33 for maintenance and repairs, charged to operating cost.

### Business History Repeating Itself

"The first quarter of 1930 has passed and the business results in the country during that period can be taken as a measure of the accuracy of the forecasts made at the time of the stock market disturbances in the last quarter of 1929," said Mr. Willson today.

"As I see it, it is a case of business history repeating itself—the actual results being far better than the dire forebodings of the extreme pessimist, but not quite up to the expectations of the extreme optimist. By comparison with records for the first quarter of 1929, the paper industry has practically held even. With many companies business has been equal to that of a year ago; in some cases ahead, and but few have fallen behind.

"I look for the second quarter to be even better than the comparable period of 1929—and believe that the paper industry will continue to hold its own during the balance of the year."

### The Balance Sheet

The balance sheet, and profit and loss account follow:

BALANCE SHEET
AMERICAN WRITING PAPER COMPANY, INCORPORATED
December 31, 1929

**ASSETS**

| | | |
|---|---|---|
| CURRENT ASSETS: | | |
| CASH: | | |
| In Banks | $911,512.10 | |
| On Hand | 7,100.00 | $918,612.10 |
| NOTES AND ACCEPTANCES ON HAND | | 75,774.67 |
| ACCOUNTS RECEIVABLE: | | |
| Due from Customers | 1,172,596.15 | |
| Less: Reserve for Allowances, Doubtful Accounts, and Discount | 94,297.26 | 1,078,298.89 |
| INVENTORIES: (At Cost or Market) | | |
| Paper | 1,353,853.85 | |
| Work in Process | 70,656.43 | |
| Raw Materials in Mills | 510,169.17 | |
| Supplies, Stored Pulp, etc. | 185,820.13 | 2,120,499.58 |
| TOTAL CURRENT ASSETS | | $4,193,185.24 |
| FIXED ASSETS: | | |
| Land, Buildings, Water Power Rights, etc. | 19,337,389.37 | |
| Less: Reserve for Depreciation | 7,775,046.60 | |
| | 11,562,342.77 | |
| Good Will, Trade Marks, etc. | 1.00 | |
| Investments $444,499.22 | | |
| Less: Reserve for Doubtful value 26,899.00 | 417,600.22 | |
| TOTAL FIXED ASSETS | | 11,979,943.99 |
| DEFERRED ASSETS: | | |
| Sundry Expense Prepayments | 62,877.16 | |
| Deferred Taxes and Other Expenses | 55,594.22 | |
| Payable on exercise of Officers' and Employees' Options to purchase Voting Trust Certificates for 6,675 shares of Common Stock | 66,750.00 | |
| TOTAL DEFERRED ASSETS | | 185,221.38 |
| | | $16,358,350.61 |

*(Continued on page 28)*

# Canadian News Print Paper Output Analyzed

## Big Four Companies Have Total Capacity of More Than 7,000 Tons Per Day, Leaving Only About 4,000 Tons Daily For All Other Mills—Rapid Development of Canadian International Focusses Attention—Great Expansion of Electric Power Holdings

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., April 7, 1930.—The rumors that the Abitibi Power and Paper Corporation may figure in a further big consolidation of news print interests directs renewed attention to what may be called "The Big Four" in the Canadian news print industry. These, in the order of their daily capacity are as follows:

| | Tons news print per day |
|---|---|
| Abitibi Power and Paper Corporation | 2,200 |
| Canada Power and Paper | 1,944 |
| Canadian International | 1,700 |
| Price Bros. & Co. | 936 |

The figures for the Canadian International Paper Company do not include the news print output of the E. B. Eddy Company, of Hull, in which, it has been rumored again and again, the International Paper Company has an interest. If these are added it brings the International's figures up to 1,827 tons per day, and the total of the four companies up to well over 7,000 tons per day, leaving only about 4,000 tons per day capacity for all the other mills.

### Development of International Paper

Just at present attention is being focused on the rapid development in Canada of the International Paper Company, through its subsidiary, the Canadian International Paper Company. In its mill at Three Rivers the company has what is claimed to be the largest news print mill in the world, with a capacity of 704 tons of news print per day. In addition, the company manufactures in Canada many other pulp and paper products, chief of which is sulphite wood cellulose. A large proportion of the total world consumption of this cellulose for the manufacture of rayon comes from the company's mill at Kipawa, which has an annual output of 100,000 tons.

Apart from this the expansion of the company in the electric power field in Canada has been as great as in the pulp and paper industry. The company's ranking Canadian power subsidiary is Canadian Hydro-Electric Corporation, Ltd., controlling Gatineau Electric Light Company, in Quebec, and Saint John River Power Company, in New Brunswick. The plants of these companies have an installed capacity of 622,600 h.p., and give Canadian Hydro-Electric Corporation high rank among the great hydro-electric power companies of the world. This is altogether apart from the International's New England electric system, operated through its subsidiary, the New England Power Association. The group included in the latter corporation constitutes the largest power system in the New England States, furnishing light and power to a territory in Massachusetts, Vermont, New Hampshire and Rhode Island covering an area of about 9,000 square miles, and serving light and power to over 250 communities having a population in excess of 2,500,000. The group owns and operates hydro-electric plants with a capacity of 414,500 h.p. installed or under construction, and 477,500 h.p. of steam electric generating plants. Altogether, therefore, counting both Canadian and American plants, the International has a total electric power capacity of 1,514,600 h.p.

### Howard Smith Had Satisfactory Year

The annual report of the Howard Smith Paper Mills, Ltd., is now in the hands of the shareholders. The operating profit was shown at $1,284,481 for the twelve months ending December last, which compares with $995,163 for the nine months ended December 31, 1928. The report is the second one since the reorganization, so that no exact comparisons can be made.

The earnings for the year were at the rate of $1.97 per share on the 220,000 shares of no par value common stock outstanding at the close of the fiscal year compared with 200,000 shares in the preceding year. The working capital position remains strong, with an excess of current assets over current liabilities of $1,825,032. This figure is slightly lower than the working capital shown at the close of 1928, which was $1,918,927.

The plant, equipment and timber limits are shown in the balance sheet at $13,091,555, an increase of $744,694, as compared with December 31, 1928, the previous fiscal year's closing. This increase represents largely expenditures on the company's properties, and particularly additional equipment for the Cornwall mill. These betterments were financed entirely out of the company's resources and earnings.

### Air Service Links Montreal with News Print Centers

Announcement is made of a new passenger airplane service between Montreal, Cap de la Madeleine and Quebec. Flights will be made both ways daily, leaving Montreal and Quebec at 10:30 a.m. and 5 p.m. respectively. This will enable Montreal business men to get through their mail and be in Quebec in time for lunch. Possibly if demand develops there may be a stop each way at Three Rivers, as this place is rapidly developing. As an instance it may be mentioned that Canada Power and Paper Company is now reorganizing its head office staff, with the ultimate result that all the operating staff will be in Three Rivers, only the executive staff being kept in Montreal.

### Value of Anticosti Island

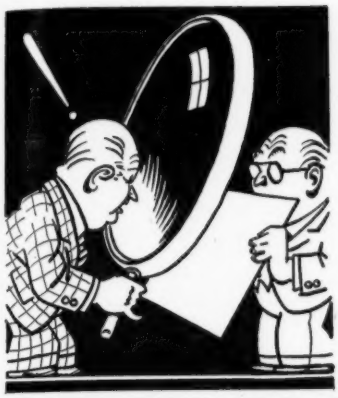
At the annual meeting of Canada Power and Paper Corporation, the president, George Chahoon, Jr., commented on the economic value of Anticosti Island, which now comes under the control of the corporation consequent on the absorption of the three companies which owned the island, namely Wayagamack, Port Alfred and St. Maurice Valley Corporation. He said that the Island was a wonderful asset to the company. He further stated that it is estimated that there are from 15 to 18 million cords of wood to be extracted and exported from the Island. The property is full of rivers and at no place would there be more than 2½ miles to haul timber.

Actual work was being done to take off wood and send it to Port Alfred and Wayagamack mills and the work was being done in as an intelligent a manner as possible. Between 100,000 and 150,000 cords of wood were reported from the Island during the past year. In view of the agreement between the three companies and the Anticosti Corporation to take 390,000 cords of pulpwood annually up to Nov. 30, 1930, there must be considerable pulpwood undelivered, if exports during the past year were only between 100,000 and 150,000 cords.

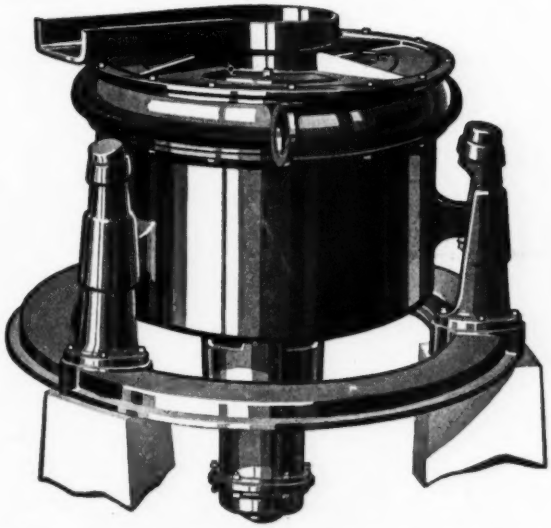
### New Fraser Mill Begins Operations

Another new Maritime pulp plant has begun to turn its wheels with the operation of the new high grade bleached sulphite mill, which was recently completed by the Restigouche Company, Ltd., a subsidiary of the Fraser Companies, Ltd., at Atholville, in northern New Brunswick.

The new mill has a capacity of 45,000 tons of pulp annually with a consumption each year of some 90,000 cords of wood and employing several hundreds of men.



BIRD MACHINERY



# OFFER THEM CLEAN PAPER---CENTRIFINE IT

The mills that are now passing their stock through Bird Centrifiners* are making paper that sells faster, with less sales expense — paper that every buyer likes because it's really clean.

It will pay to be among the first to offer paper of this new quality. Write for complete information.

*Manufactured under license from the Centrifugal Engineering and Patents Corporation, owners of the Erkensator patents.

Bird Machine Company
South Walpole, Massachusetts

## NOW YOU CAN MAKE PAPER THAT IS REALLY CLEAN . . .

# USE BIRD CENTRIFINERS

# Activities of the Wisconsin Paper Industry

## New Structure Just Completed for Munising Paper Co., of Munising, Mich., Will Enlarge Facilities for Taking Care of Growing Demand for High Grade Papers—Allan Paper Co., of Menasha, Wis., Constructing New Building to House Its Operations

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., April 7, 1930.—Completion of a new office building by the Munising Paper Company, of Munising, Mich., has enabled the concern to enlarge the facilities of its finishing department to take care of the growing demand for high grade papers. The new structure is 54 by 64 feet in size, and is finished in brick. General and executive offices are located on the first floor and the accounting and engineering departments, the display room and the wood superintendent's quarters are on the second floor.

The old office rooms have been remodeled so they become a part of the finishing room, giving access to much needed space. Construction work is now in progress on a new power plant, with one huge boiler that will replace twelve outgrown units.

As the result of a national advertising campaign, the company finds the demand for Caslon bond gradually increasing, and the sales are growing in other lines made by the mill. The annual production of bleached sulphite is now approximately 26,000 tons and most of it is being utilized in the Munising plant. Consumption of pulpwood last year amounted to 52,000 cords.

Construction has been started by the Allan Paper Company, Menasha, Wis., on a building which will house its operations. The company was incorporated recently and will deal in waste paper and converted products. The building will be 60 by 120 feet in size and two stories high. Paper sorting will be done in the upper story.

The Edgewater Paper Company, Neenah, Wis., is also enlarging. A small addition costing about $8,000 is being added to the warehouse.

### American Foresters to Convene

Comprehensive study of the forest situation in the Lake States of Wisconsin, Minnesota and Michigan will be given at the annual meeting of the American Forestry Association in Minneapolis April 29 and 30 and May 1. Raphael Zon, director of the Lake States Forest Experiment Station, is to speak on "A Close-up of the Lake States' Problem." Another address is to be given by Carlisle P. Winslow, director of the United States Forest Products Laboratory. Gifford Pinchot, former governor of Pennsylvania, will present the subject, "How I Would Stop Forest Devastation." "The Answer to the Delinquent Tax Problem" will be given by George Bishop, secretary of the Upper Peninsula Development Bureau of Michigan. The program also includes other speakers of prominence, including educators, conservationists and land and timber owners. On the closing day the delegates will go to Cloquet, Minn., for a day of observation in what is reputed to be the largest wood converting center in the world.

### Moquah Forest Area Established

Final steps have been taken in establishing a federal forest in Bayfield county, Wis., to be known as the Moquah forest area. The county has made final transfer to the government of 13,382.23 acres of land to be set aside for the planting of new forests. The price paid by the government for the lands was $16,727.79, or $1.25 an acre. At least 500 acres will be planted this spring. The area is to be patrolled continually to prevent forest fires.

### Badger Paper Mills Taxes Reduced

Through an understanding reached by the city of Peshtigo, Wis., and the Badger Paper Mills, Inc., of that city, the company's tax assessment on real estate has been reduced $200,000, thus saving $8,000 a year in taxes. The company objected to the assessment when first made, claiming it was too high, and filed a request with the Wisconsin tax commission for a complete re-assessment of the city. The city officials thereupon compromised and granted the lower figure.

### G. W. Mead Re-elected Mayor

In the spring election last week, George W. Mead, president of the Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis., was successful in his candidacy for mayor of his home city. He was given 2,206 votes against 1,344 for his opponent. This will be Mr. Mead's third term.

### F. J. Sensenbrenner Plans New Home

Architectural plans have been drawn for the palatial new home which will be built on Lake Winnebago near Neenah, Wis., by F. J. Sensenbrenner, president of the Kimberly-Clark Corporation. It will be one of the most attractive country estates in the vicinity, and the project is estimated to cost $500,000.

### Many Attend Harry Price Funeral

Funeral services for Harry Price, late secretary and treasurer of the Kimberly-Clark Corporation, were held at Neenah, Wis., on Tuesday of last week. Offices of the company were closed during that period, and large numbers attended the burial. The pallbearers were S. F. Shattuck, C. B. Clark, P. R. McCaull, Charles A. Sommers, D. K. Brown and Harold Lyons. Services were held at St Thomas Episcopal Church, Neenah, and were conducted by the Rev. A. Gordon Fowkes. The body was placed in a vault in Oak Hill cemetery, Neenah.

Mr. Price died the previous week at Orlando, Fla., following a heart attack. Two special cars conveyed the body, the relatives, officers of Kimberly-Clark Corporation and other friends from Florida to Neenah.

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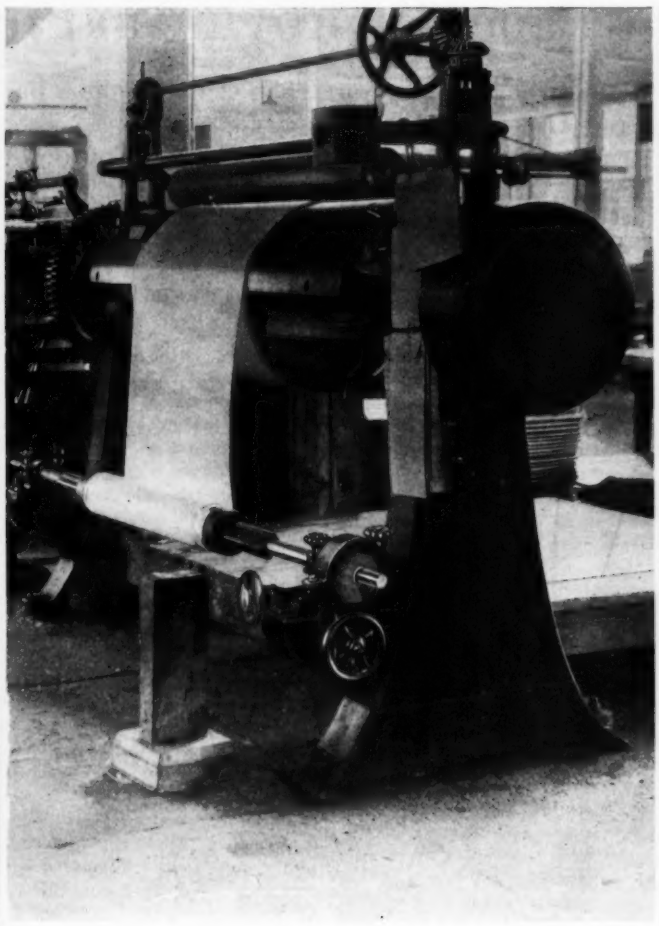
## Reforestation Activities In Jefferson County

[FROM OUR REGULAR CORRESPONDENT]

POTSDAM, N. Y., April 5, 1930.—It was learned this week that all arrangements have been made to plant 291,500 trees on the idle land in Jefferson County. The work will be started early in May under the direction of C. W. Mattison, county forester. An order for 85,000 trees was placed this week by the county forestry committee and the shipment will consist mostly of spruce and pine. The majority of trees will be planted in what is known as the Worth Memorial Forest, while the remainder will be placed in the town of Rodman. It was announced that considerable interest is being manifested in reforestation in all sections and that over 100,000 trees had already been ordered from the state department for individual plantings.

Reforestation activities by St. Lawrence University will attain even greater proportions this spring than last year, according to F. M. Callward, head of the forestry department. An order for 100,000 trees for planting on university lands was forwarded recently to the Conservation Department and the plantings will include some forty acres adjacent to the campus grounds as well as fifty acres on the Covey tract in Parishville. The latter planting will be largely in the nature of a demonstration forest for use by the forestry department in its extension work. The department plans to acquire other tracts of idle land from time to time for the demonstration of the practicability of reforestation work.



# SAVES WASTE

**Our Automatic Collapsible Reel is designed for winding tissue, crepe and other light papers which are finished in a bundle cutter. It saves the enormous waste, due to the increased length of outer sheets, when the paper is wound on a reel with stationary bars. This and other types of reels built by us, are fully described in our new Catalog Section 107. Write for it today and let us bid on your needs.**

**DOWNINGTOWN MFG. CO.**
**DOWNINGTOWN, PA., U. S. A.**

# Demand for Paper Improving in Philadelphia

## Fine Paper Market Exhibits Stronger Undertone Than of Late—Book Papers Rule Steady With Good Volume of Contract Orders Transacted—Wrapping Paper Situation Involved, Due to Southern Kraft Price Recessions—Specialties Continue Active

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., April 7, 1930.—Continued improvement marked the week's trading, with renewed interest by many customers who were holding off orders awaiting broadening of business generally. From the many standard grades of paper that have been more or less dormant for the past few months to the specialized seasonally active lines, more vigorous demand was noticed. Recent price concessions have aided in stimulation of demand but there continues a watchfulness on the part of the paper consuming trades for more bargains as the break in wrapping paper prices has confirmed general opinion that price concessions were in the offing. Now that indications point to steady business conditions the trade is assured that prices will be adjusted to meet the growing demand if the improvement broadens.

### Increasing Interest in Fine Papers

Through continued campaigning the manufacturers are promoting livelier interest in the fine paper market by consumers in the printing and allied trades. There has been marked forward strides in the purchasing power of publishing and printing concerns with the advent of the vernal season. Mill representatives report a steady trend in book papers and April contracts are larger proportionately as confidence is restored. Stationery grades are more active, especially better class announcements, papers that will soon be in demand for the Graduation season and for diplomas, the more modern grades of fancy colored book papers and covers for spring time advertisement and announcement greeting card stocks and card boards, such as bristols and envelope stocks. Better grades of bonds and writing papers grow slowly in consumption but the cheaper lines still lag behind. While wholesalers of paper continue to show improvement in their orders, paper distributors have likewise broader activity but more restricted purchases of the hand to mouth type. This type of buying, however, is frequently replaced. It takes extra effort on the part of paper merchants and salesmen to land orders but concentrated efforts and continually plugging has results—for the paper merchants who are applying the pulmotor to their business have been fairly successful in making the upward grade in their business, so far this season.

### Confusion Over Prices

While wrapping paper business grows there is confusion over the breaking prices. The break in kraft in the southern market has not been as pleasing to the dealers as to the consumers, for it has created confusion over the outlook for that particular line and for the converting industries using this grade of paper. Both krafts and bags are now churned about as dealers endeavor to dispose of the lines bought at higher prices, and those who were able to secure at the cheaper prices compete for orders, with victory of course for those who are able to quote the lowest. Fortunately, few dealers have been caught with the higher priced grades so that competition will be limited in time and may be averaged down by repurchases of the lower priced stocks. But the problem that has confused the trade is—will other grades of wrapping papers be subjected to the same revisions?—and while this uncertainty prevails the dealers are marking time and consumers likewise hold off waiting for announcements of further reductions. Easter specialties and hot weather goods move in fair volume as the needs of the holidays are anticipated. Prices of glassine are rather unsteady but bags and printed made-up wraps are steady, with prices lower than at the same season last year. Manufacturers of glassines are slightly more active, orders however being of from hand to mouth buying proportions. Builders' supplies in paper goods improve with good weather.

### Westinghouse Equips Westvaco Mill

With the completion of the installation of the new units in the power plant of the West Virginia Pulp and Paper Company mill located at Tyrone, Pa., in the late month the plant was again placed in operation. The new Westinghouse units consist of the 4,500 k.w. turbine generator which will enable the paper manufacturers to increase the power supply of the plant. The new turbine is of the high power pressure type. The turbine was installed under the Philadelphia headquarters of the Westinghouse Electric and Manufacturing Company, 30th and Walnut streets, where A. M. Cooper is manager of the paper mill equipment department.

### Albemarle Equipped with Pusey & Jones Machines

The new paper machine which was constructed by the Pusey & Jones Company, Philadelphia and Wilmington, at the Albemarle Chesapeake Corporation plant, was placed in operation in the production of kraft during the past week. The new Pusey and Jones machine is equipped with the Westinghouse Electric and Manufacturing Company sectional drives and with the erection of the new units there were added Pusey and Jones winders of the two drum type which have been equipped with individual Westinghouse motors drives operating on a variable voltage of special construction. These variable voltage drives permit of the starting of the units at zero speed and with acceleration of speed can be promoted to maximum speed of 3,000 feet per minute. The units were constructed by the Quaker City branch of the Westinghouse Electric and Manufacturing Company.

### General Electric Drives for Glatfelter Mills

When the new paper making machine constructed by the Pusey & Jones Company of this city and Wilmington, Del., is completed in the newly erected wing of the mills of the P. H. Glatfelter Company, of Spring Grove, Pa., it will be equipped with drives of the General Electric Company. The new Pusey & Jones machine is to be installed in the addition to the mills just completed and will consist of a paper making machine providing for a 190 inch width. The new machine will be completed by late summer and ready for operation in Fall. The General Electric drives will be of the sectional type.

### Federal Plant Equipped With Westinghouse Units

Westinghouse Electric and Manufacturing Company motors have been added to the machines recently installed in the new addition to the Federal Container Company plant at 55th street and Paschall avenue. The machines are equipped with individual motors and are used in manufacture of corrugated products for which the addition to the plant was designed.

### Develops New Leather Substitutes

New leather substitutes have been perfected by the Russell Products Company, 810 Sansom street, within the year, and these are now being stocked in regular standardized lines. The lines are a complete assortment of leather colorings of rich hues that can be used for the manufacture of wearing apparel, such as ladies' belts, pocket books, novelties for the desk, stationery specialties and for book binding purposes where a rich leather paper is needed. The new product has all the qualities of real leather,

# DIRT THAT COSTS ITS WEIGHT IN GOLD

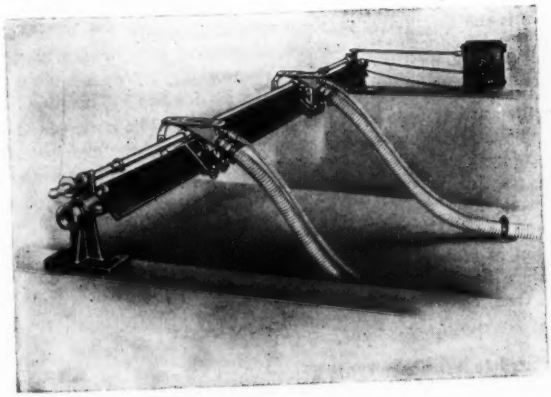


Figure the cost of dirty felts . . . in lowered paper quality . . . in decreased felt life . . . in sluggish drying . . . in time out for wash-ups. Vickery Felt Conditioners save all that. Try one, at our expense.

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can be readily shaped, and scives like real leather, and also sews and pastes like leather. It is soft and pliable in texture and has all the grainings of real skins.

### Kennedy Car Liner Moth Proof Specialties

A complete line of hand made bags of moth proof type is ready for the summer trade and for the manufacturers of products that require special protection from such pests, perfected by the Kennedy Car Liner Company, of Shelbyville, Ind., and Woodside, Ont. The firm is showing samples of these summer time commodities at the local offices, under management of Charles Tucker, at 4625 Sansom street. The firm produces moth proof products in bags for the clothing trades, upholstery and furniture industries and other consumers who need a specially large bag constructed to meet unusual purposes not met in the standard lines of the trade. They are in red rope, kraft and colored papers especially treated for protective purposes. It also produces bags for the automobile and piano industries. Among the many varieties of larger bags are those for storage, shipping and packing of bulkier articles.

### Crescent Box Corp. Adds To Units

For the purpose of adding to its production the Crescent Box Corporation, 621 East Erie avenue, the former Crescent Corrugated Products Corporation, has installed more mechanical units to meet needs of growing business in its lately erected plant with all modern surroundings in buildings and machinery. The increased units provide for 10 per cent rise in output of corrugated paper boxes and folding boxes. The plant is now under management of W. G. Schrack, who succeeded B. C. Tamlin as general manager and secretary of the corporation. The Crescent Box Corporation is owned by George A. Beach, of the sporting goods manufacturing concern of this city, and William K. Jefferies, well known box manufacturer.

It formerly was located at 5th and Noble streets, removing to its present quarters about two years ago on completion of the present larger plant erected for its own use.

### Paramount Paper Products Corp. On Night Shift

The prosperity of the Philadelphia manufacturers of paper bag specialties is evident in the full 24 hour operation schedule on which the local converters are now running, and among such firms is the Paramount Paper Products Corporation. In order to speed up production on its line of glassine and parafan bags the firm has been obliged to add to its working forces a night shift. The Parafan bags are particularly in demand. This line is a patented article for the food products trade. The corporation has a complete printing equipment for its glassine bags and manufactures bags for the printing and paper trades as well as consumers. The glassine bag specialty department which is also equipped to print on other papers than those in the transparent types of bags in one or more colors, is conducting a prosperous business at this season in preparation for the Easter holidays. It is equipped to produce bags in any size from 2½ inches to 22 inches in length and from one inch to 13 inches in width.

### Enterprise Paper Co. Stocking Easter Lines

Complete assortment of Easter lines of bags, waxed papers, shredded wax papers, and other grades of paper adapted especially for the Pascal celebration are now stocked freely by the Enterprise Paper Company, 3rd and Callowhill streets. In addition to its line of Easter paper goods the firm has a complete assortment of boxes with Easter designs and other containers for the mercantile and food industries.

There are numerous designs of its own origin in Easter glassine wraps and in wrapping papers for fancy packages of timely and seasonable demand.

### Thomas M. Royal & Co.'s Most Prosperous Year

With the closing of the old year's accounts and the accounting of the first quarter of the current year Thomas M. Royal & Co., with mammoth bag plant located at 7th and Grange streets, reports the most prosperous era of its business history with surplus of business far in excess of any previous record. The firm is now working on night and day schedule, meeting demands for its complete lines of cellophane faced sacks and bags and its many owned patented articles in bags of the non-sift type which answer to the Inter-State Commerce Commission's requirements for railroad transportation. Demand for its lines of coffee bags is unprecedented. As cellophane grows in favor orders increase on its better grades.

### W. H. McKeever Represents Hammersley Mfg. Co.

W. H. McKeever is now representing the Hammersley Manufacturing Company, with local offices in the Drexel Building and is handling the line of waxed papers manufactured by that company and the Patterson Parchment Paper Company's parchments, as successor to J. D. Ellis. He will continue to cover the Philadelphia territory.

### Charles Beck Paper Co. Exhibits

A permanent exhibit of the Strathmore papers and envelopes as arranged under the new plan of manufacture and distribution has been featured in the display room of the Charles Beck Paper Company, 609 Chestnut street, for the benefit of the printing and other consuming industries. The exhibit is under direction of Charles W. Bond, promotion representative of the company, who is giving special attention to the printers in their selection of the Strathmore papers and their grouping with envelopes to meet all the colors, styles and sizes of the papers. It is one of the most comprehensive paper exhibits ever issued by a single manufacturer, with wide range in modern color and finishes.

### Builders Papers Saturated By Lang Paper Co.

As the demand for roofing papers improves with the open weather the saturation plant recently installed at the Lang Paper Company plant in Gloucester, N. J., is taxed to capacity as production is increased to meet growing needs for felts for the roofing trade. Heretofore the Lang Paper Company has manufactured only the felts, but during the last year it erected a single story structure to provide for the saturation department, the installation of equipment having recently been added and extended to meet the needs of growing business. For many years the Lang company operated its plant on the Parkway at 24th and Vine streets, but moved to Gloucester when its site was condemned by the City of Philadelphia for construction of the Parkway. Although in business for more than forty years it never before had a saturation department.

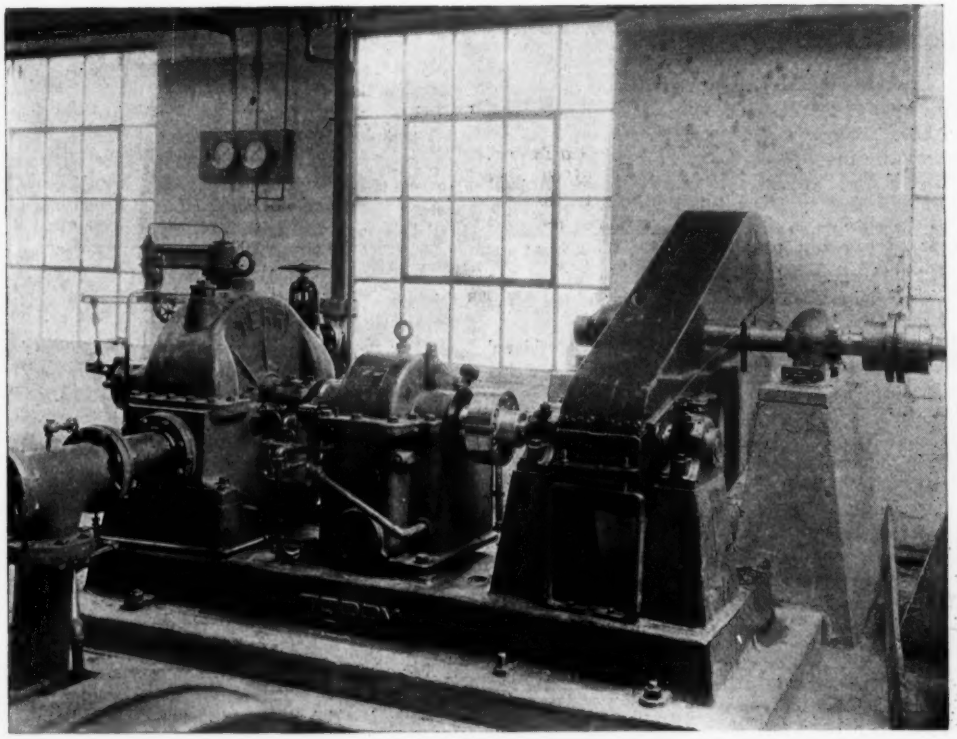
### Fischer Paper Co. Files Bankruptcy Account

Filing of the account of the Fischer Paper Company and its subsidiary, James S. Mason & Co., with headquarters at 212 South Front street, shows that the firm's liabilities amount to $35,696 and the assets at $9,350. The firm became involved in bankruptcy proceedings about two weeks ago but the accounting was not filed until last week.

### American Container Corp. Acquires Offices

Eastern offices have been acquired by the American Container Corporation of Chicago—with paper board mills and converting plant in this city, operating in the Manayunk district—in the newly constructed building at 17th street and Sansom street. The entire 10th floor has been taken over and here will be located the general offices of the corporation. The American Container Corporation took over the former board mills and container plant of the Philadelphia Paper Manufacturing Company in the Manayunk district a few years ago and has been making extensive changes to the plant in the way of development of its Eastern mills and manufacturing quarters for the fiber containers and paper shipping drums which are produced by the corporated chain. There will be located here the entire staff of executives of the general offices for the Eastern District.

# TERRY
# Paper Machine Drive



85 H.P. drive in an Eastern Mill.
Replaces a reciprocating engine

## NEW LIFE FOR THE OLD PAPER MACHINE

**The Terry drive in addition to being used with new paper machines has been employed extensively with older units.**

**Among its many advantages in cases of this kind are its ability to operate at higher paper speeds and its wide speed range. It also gives uniform regulation, clean exhaust steam for drying, power at low cost and highly dependable operation.**

**Terry engineers have accumulated a considerable amount of important information on applying new drives to old machines. Let them help you.**

T-1055

**The TERRY STEAM TURBINE COMPANY**
TERRY SQUARE, HARTFORD, CONN.
**Steam Turbines - Gears - Shaft Couplings**

# Corrugated Paper Box Co's Profits Are Lower

## Despite Acute Competition Due to Increased Production In Paper Box Industry, Organization Consolidated and Strengthened Its Position by Substantially Larger Output and Sales—President Predicts Earnings This Year Will Equal 1929 Earnings

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., April 7, 1930.—Profits of the Corrugated Paper Box Company, Ltd., Toronto, including figures of Hilton Bros., Ltd., Winnipeg, amounted to $114,936 for the year ended December 31, against $171,376 in 1928. Adding a balance of $125,960 brought forward from the preceding year, less 1928 income tax of $11,786 and 1928 reserve for redemption of preference shares, the balance amounted to $217,693. After deducting four preference dividends amounting in all to $55,055, the balance at credit of profit and loss stood at $162,638, as against $125,960 at the close of the preceding year. Net after all charges approximated $1 a share on the ordinary stock, compared with $2.39 in 1928. The consolidated balance sheet shows current assets, including inventories, of $216,-262 and total assets of $1,526,506.

In connection with the statement just issued President J. S. Healy says: "During the period under review large expansions have taken place in the manufacturing facilities in the industry in which your company is engaged. The increase in production resulting from these expansions created an increasingly keen price competition, which, as the year progressed, became so acute as to make profitable operations extremely difficult. In spite of this situation your management was able during this period to consolidate and strengthen your company's position in the industry by substantially increasing production and sales. Large increases in sales indicate the strong position in its field which your company holds.

"Under the circumstances an excellent operating statement is shown as indicated by gross earnings of $159,569.55. While net profits are considerably lower than in the preceding year, they are, nevertheless, exceedingly gratifying considering the conditions through which the industry has passed. That it has been possible to earn preferred stock dividends almost twice over during a period which was, we hope, as difficult as the company will ever experience, affords your directors a sense of security which we trust you will appreciate.

"In June, 1929, your company transferred its Toronto operations to its new plant at Leaside. This plant is the most modern of its kind in Canada. As a result of the enlargement in manufacturing facilities your management has been able to meet the increasing demand for the company's products, and existing plants are in a position to handle a substantially increased volume of business. Our manufacturing plants in Toronto and Winnipeg are new and modern in every respect and your management feels that no additional capital expenditure other than for machinery which may be required from time to time should be necessary for some time to come. Your management has been successful in renting the Geary avenue plant for a period of five years on desirable terms. An additional source of revenue from which the company will benefit during the current year is thus provided. The volume of business so far this year has been somewhat lower than for the same period last year owing to the general business depression that exists at the present time. However, the price situation referred to above has been considerably improved and it is confidently expected that earnings this year will equal 1929 earnings and if a general business improvement takes place increased earnings may be expected."

### Canadian Paperboard Creditors Meet

At a meeting in Toronto this week of the Canadian Paperboard Company, Ltd., creditors, inspectors were appointed representing the Bathurst Power and Paper Company, Miln Coal Company, Canadian Import Company and Johnston & Ward. The assets consist, for the most part, of equities in book accounts and securities held by the banks, also a 60 per cent interest in the U. S. paper machine and possibly certain other interests. The liabilities are approximately $300,000, which will be further increased in the event of the undertaking failing in the proposed reorganization and should the assets be sold. The claims under the bond mortgage are about $800,000, and the possible claims under power contracts between $300,000 and $400,000. In the event of the assets being sold, it is estimated that the creditors would not receive more than four cents on the dollar. At the meeting of creditors a proposal was made that will net the creditors at least five per cent in the reorganization of the business. The inspectors and the solicitors were instructed to investigate the offer made to the receiver, and if considered to be in the best interests of the creditors to accept same. The offer met with the approval of the unsecured creditors represented at the meeting. The Canadian Paperboard Company, which went into liquidation early in the year, are large manufacturers of box board and had mills at Frankford, Campbellford and Toronto, the latter being a new plant put up a couple of years ago.

### Forest Revenues Highest on Record

According to the annual report of the Ontario Department of Lands and Forests tabled in the Legislature this week, fifty-two timber areas, ranging in size from one-quarter square mile to 975 square miles, were sold by the department during the year, under advertised public competition. Thunder Bay district had 12, Timiskaming 10, Cochrane 9, Kemora 7, Rainy River 6, Sudbury 5, Algoma 2, Nipissing 1. Of these 19 were exclusive logging propositions, 14 were for pulpwood operations and the remainder for tie-making, clean-up logging and fuel wod. Revenue derived from the sale of Crown lands for settlement, tourist, townsite and other purposes, amounted to $137,245.47. The acreage of the land sold was 89,529 acres. In addition the department collected in former sales and leases the sum of $233,171.29.

Revenue derived from provincial land tax amounted to $127,-580.59. The gross revenue of the department last year was $5,059,878.20 and of this sum $3,729,554 was capital. This represents an increase of ordinary revenue over 1928 of $172,091.43. Expenditures for the year totalled $3,405,615, of which $2,179,850 was ordinary. One of the largest items of expenditure was that for fire-fighting, $1,677,671 having been spent on this phase of the service. This represents an advance of $450,000 over the previous season.

### Oppose Proposed Embargo on Pulpwood

In connection with any embargo on the export of pulpwood that may be raised in the Dominion House, a special meeting of the Chamber of Commerce of Port Arthur, Ont., was held a few days ago. The gathering was attended by representatives of a number of concerns engaged in the export of pulpwood from the Thunder Bay district and a resolution of opposition to any proposed embargo was passed. A copy of the resolution will be sent to D. J. Cowan, M. P. asking him to oppose the proposition when the bill is discussed. It was pointed out that any abrupt interference with the pulpwood industry would seriously affect employment and curtail the earning capacity of farmers and settlers whose wood is purchased by the export companies. During the last two or three years very little has been heard in Canada about an embargo on pulpwood or the imposition of an export duty. The amount of

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KENWOOD

WOOL PRODUCTS

**The new Kenwood Board Felts—Tops, Bottoms, Presses—have, in the past six months, fully demonstrated their sound economy. Based on actual "felt cost per ton" figures, these felts show a decided factor of surplus service.**

**Kenwood pioneered the one-sided board felt. Kenwood developed and perfected the Kenwood patented Tanning Process. Progressive, scientific development has produced in the NEW Kenwood Board Felts the third major contribution to felt economy.**

# F. C. HUYCK & SONS

**KENWOOD MILLS, ALBANY, N. Y.**

**KENWOOD MILLS LTD., ARNPRIOR, ONTARIO, CANADA**

# KENWOOD FELTS

wood from private lands to find its way across the border is 1,300,000 cords yearly but has been steadily decreasing of late years owing to the increase in the number of pulp and paper mills in Canada. Discussing the situation W. R. Wood, of Toronto, well known in pulpwood circles, said: "Russia has the largest pulpwood forests in the world and the United States itself the second largest. Last year a number of cargoes of Russian pulpwood were landed in the United States in competition with our own, and it requires only some such move as an embargo on Canadian wood to switch over to Russia and other countries the bulk of this whole export business with the United States—a business worth more than twenty million dollars annually, employing fifty thousand farmers, settlers, lumberjacks in season."

### Good Progress on Westminster Mill

According to word from New Westminster, B. C., the plant of the Westminster Paper Mills at that place has been completed as far as the big machine room building is concerned, and good progress is being made with the finishing room building. The machine room is 230 feet long and 71 feet wide, for about half its length, and 55 feet wide for the remainder. It is two stories high with a full sized basement. The roof has now been finished, this being of asphalt shingles, which is in line with the fire proof construction of the entire plant. The water and sprinkler system and the machinery of the plant are now occupying the attention of contractors handling this part of the work. The builders are putting the final construction touches to the finishing building, which pouring is now almost completed on the third floor of this building and a flat roof will be laid. The wharf and the boiler house are also rapidly taking shape and it is expected that the entire plant will be ready for commencement of operations early in May.

### Notes and Jottings of the Trade

L. R. Wilson, vice-president of the Abitibi Power and Paper Company, Ltd., has returned to Toronto after spending a few weeks at Pinehurst, North Carolina. President Alexander Smith, of the same company, is spending a short vacation in Bermuda.

H. Kurniker, of Schorsch & Co., paper bag manufacturers, New York, was a recent business visitor in Toronto.

Louis Lemieux, manager of the board section of the Canadian Pulp and Paper Association, has been in Toronto for some time past working with others for the stabilization of the pulpboard and box business in Canada and the United States.

A number of the members of the wholesale paper trade in Toronto were present at a recent meeting of the Toronto Club of Printing House Craftsmen when James Dalzell, of Toronto, spoke on "The Romance of Offset Printing."

Acting on a complaint registered by L. E. Hughes, president of the Ontario Tourist Trade Association at North Bay, Ont., the Department of Game and Fisheries will investigate the charge that refuse from the Canadian International Paper Company's plant at Timiskaming is killing off game fish in the Ottawa River.

It was announced in Toronto this week that George C. Winlow, who has been in charge of sales for the Alliance Paper Mills, Ltd., had been made a member of the board of directors of the company and also a director of Ritchie & Ramsay, coated paper manufacturers, who form part of the Alliance organization. Mr. Winlow is one of the best known and most popular members of the paper trade in Ontario and his promotion is viewed with a good deal of satisfaction in paper circles generally. George W. Pauline has been named head of Alliance in succession to K. S. Maclaughlan who has gone to the Bathurst Company, in Edmund, N. B. where he will be general manager.

## Clarke Marion To Manage Coating Mill

Clarke Marion of the Champion Coated Paper Company at Hamilton, Ohio, has been appointed manager of the coating mill. He has been connected with the company for eleven years.

## AMERICAN WRITING REPORT

*(Continued from page 17)*

**LIABILITIES AND CAPITAL**

| | | |
|---|---|---|
| CURRENT LIABILITIES: | | |
| ACCOUNTS PAYABLE: | | |
| Trade Creditors, etc. | $475,976.11 | |
| Accrued Wages, Taxes, etc. | 42,767.41 | |
| TOTAL CURRENT LIABILITIES | | $518,743.52 |
| FUNDED DEBT: | | |
| First Mortgage 6% Gold Bonds (due January 1, 1947) | | |
| Authorized and Issued | $5,500,000.00 | |
| Less: Bonds in Treasury | 34,000.00 | $5,466,000.00 |
| Serial 4% Gold Notes | 525,000.00 | |
| Less: Notes in Treasury | 67,900.00 | 457,100.00 |
| Reserve for Federal Income Taxes, Payable 1930 | | 46,724.10 |
| CAPITAL STOCK: | | |
| Preferred Stock, without nominal or par value—authorized and outstanding, 90,000 shares (Voting Trust Certificates for 734,4239 shares held in Treasury). | | |
| Common Stock, without nominal or par value—authorized and outstanding, 200,000 shares (Voting Trust Certificates for 2,748 shares held in Treasury, 6,675 shares in escrow for officers' and employees' options, and for 2,500 shares in escrow for possible future options) | | 9,345,322.33 |
| EARNED SURPLUS | | 524,460.66 |
| | | $16,358,350.61 |

**PROFIT AND LOSS ACCOUNT**

For the year ended December 31, 1929

| | | |
|---|---|---|
| Gross Sales: | | |
| Gross Sales | $12,896,586.56 | |
| Less: Returns, Allowances, etc. | 761,711.54 | |
| NET SALES | | $12,134,875.02 |
| Manufacturing Cost of Goods Sold: | | |
| Raw Materials Consumed | 5,700,537.15 | |
| Direct Labor | 1,361,802.21 | |
| Manufacturing Expenses | 3,174,925.51 | |
| | 10,237,264.87 | |
| Inventory Adjustments | 23,143.87 | 10,260,408.74 |
| GROSS PROFIT | | $1,874,466.28 |
| Commercial Cost of Sales: | | |
| Administrative Expense | 255,461.77 | |
| Selling Expense | 883,647.05 | 1,139,108.82 |
| OPERATING PROFIT | | $735,357.46 |
| Other Income | 122,621.87 | |
| Other Expenses | 120,683.60 | 1,938.27 |
| NET PROFIT before Bond Interest and Federal Income Tax | | $737,295.73 |
| Interest on Bonds | 327,960.00 | |

## "Hands Across the State"

Under the title of "Hands Across the State" an attractive folder is being sent out announcing the consolidation of the Quimby-Kain Paper Company, Grand Rapids, Mich. and Beecher, Peck & Lewis, of Detroit, Mich. In part the folder says:—

"It is believed that the many friends and customers of both corporations will be better served through the merging of resources; men, merchandise and dollars.

"Economies, through increased buying power, as well as through standardization of methods and merchandise, will be effected, obviously increasing efficiency and assuring definite savings to our customers.

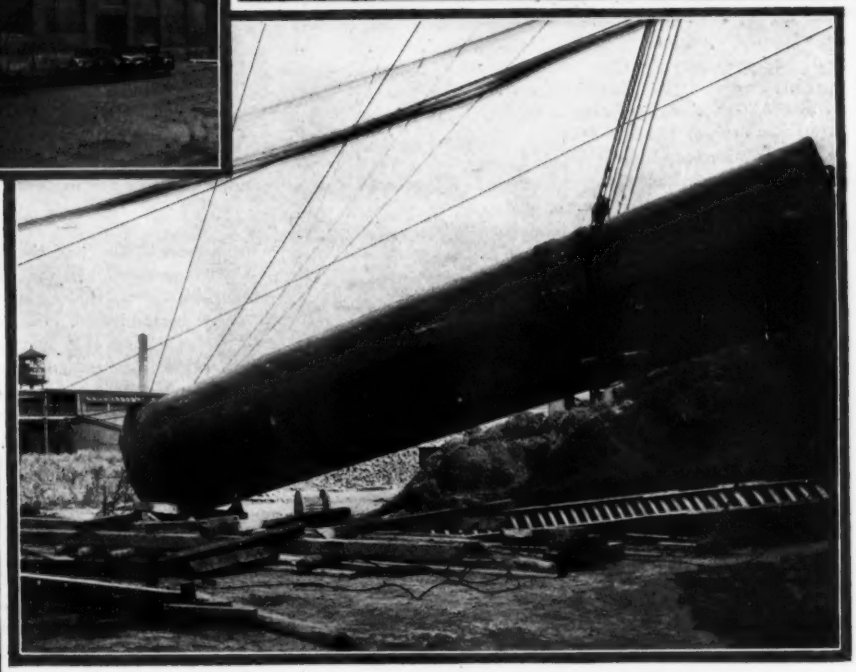
"The management of both corporations will remain the same. Each house will continue as an integral part of the commercial, financial and social structure of its city."

## Zellerbach Takes Over Dixon & Crane

SAN FRANCISCO, Cal., April 7, 1930.—The Zellerbach Paper Company has recently taken over the Paper business of the firm of Dixon & Crane of Stockton, Cal.

Gay E. Crane will be associated with the company in the sales department of the Stockton Division and will have a regular following of paper accounts in the City of Stockton.

*When Ferguson engineers leave the job, production starts. No lost time—no lost motion. Nothing need be left for you to do except to turn on the power.*



*More than 8,000 of the country's leading executives are regular readers of the Ferguson Cross Section—a monthly magazine dealing with timely business and engineering topics. A request on your letterhead will bring it to you gratis.*

**FERGUSON engineers have demonstrated to many of America's leading industries that it is possible to save one-fourth to one-third the time usually required to design, build, and equip a complete manufacturing unit. ¶ They shorten the gap between the original idea and the completed project by handling every detail of design, construction and equipment within one experienced organization and under one responsibility. ¶ The progressive manufacturers for whom Ferguson builds, save months of profitable production time which are lost to concerns that still split the responsibility among a number of unrelated organizations.**

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# International Paper & Power Earnings Increase

The first annual report of International Paper and Power Company shows earnings for 1929, after all prior charges and deduction of depreciation reserves, of $4,011,762 for the preferred and common stocks of International Paper and Power Company substantially the same as the $3,949,206 realized for the same stocks in 1928. The ability of the company to maintain its earnings in view of the fact that the price of news print paper in 1929 in such typical markets as New York and Chicago averaged $5.50 per ton below the price in 1928, is a measure of its progress during the year. The earnings of the company showed progressive increases each quarter during 1929, earnings for the last three months being much larger than for any previous quarters.

For the full year 1929 the earnings available for depreciation and for dividends on the shares of International Paper and Power Company amounted to $13,151,264.85. Total dividend payments on the shares of the Company amounted to $8,834,511 (preferred dividends, $6,447,651 and Class A common dividends, $2,386,800), and depreciation to $9,139,502,82, leaving a deficit for the year of $4,822,748,97.

The organization of International Paper and Power Company and of International Hydro-Electric System, the power and utility holding company for the group, have made it possible to broaden substantially the scope of the company's operations in the utility field. Specifically, it has made possible the acquisition of a large additional block of common shares of New England Power Assocation, sufficient to give the company control of the Association by a large majority.

The broadened scope of power and utility operations is indicated by the facts that out of total capital assets with a book value of $661,001,400 at December 31, 1929, $410,610,283 or over 62 per cent represented power and utility properties and investments. At the present time practically two-thirds of the consolidated net earnings available for interest and reserves are being derived from power and utility operations.

The consolidated balance sheet shows that at the end of 1929 net current assets exceeded $56,000,000, while the ratio of current assets to current liabilities was nearly four to one. Neither the company nor any of its subsidiaries had any bank loans.

### Consolidated Earnings Statement

The consolidated earnings statement of the International Paper and Power Company and subsidiaries for two years compare as follows:

| | Year 1929 | Year 1928 |
|---|---|---|
| Gross Sales | $148,575,723.52 | $92,872,321.35 |
| *Less:* Cost of Sales and Expenses, less Other Income | 114,023,741.06 | 75,268,045.38 |
| Net Revenue, Including Other Income | $34,551,982.46 | $17,604,275.97 |
| *Less:* | | |
| Depreciation | 9,139,502.82 | 6,188,928.69 |
| Interest on Funded Debt | 12,889,136.66 | 5,567,727.51 |
| Amortization of Discount on Funded Debt | 719,323.83 | 342,852.51 |
| Reserve for Income Taxes | 756,735.73 | 403,000.00 |
| Minority Interest in Earnings of New England Power Association and Other Subsidiaries | 1,161,280.39 | |
| | $24,665,979.43 | $12,502,508.71 |
| Balance Available for Dividends | $9,886,003.03 | $5,101,767.26 |
| Dividends on Stocks of Subsidiaries | 5,874,241.00 | 1,152,561.00 |
| Balance Added to Surplus | $4,011,762.03 | $3,949,206.26 |
| Surplus Beginning | 18,180,331.93 | 22,648,543.81 |
| *Add:* Undistributed earned surplus of New England Power Association applicable to shares controlled by International Paper and Power Company and arising since date of acquisition of such shares and minor surplus adjustments | 1,711,748.72 | |
| | $23,903,842.68 | $26,597,750.07 |
| *Less:* Dividends on Stocks of International Paper and Power Company | | |
| Dividends on Preferred Stock | $6,447,651.00 | $6,268,756.83 |
| Dividends on Common Stock | 2,386,860.00 | 2,386,853.40 |
| Total Dividends | $8,834,511.00 | $8,655,610.23 |
| *Plus:* Paid in Surplus | | 242,506.07 |
| Surplus End of Period | $15,069,331.68 | $18,184,645.91 |

### Extensive Paper and Pulp Development

In 1929, the extensive paper and pulp development program commenced in 1925, was substantially completed. During this period the capacities of the Three Rivers news print and Kipawa sulphite mills were doubled and three additional news print paper mills in Canada and Newfoundland and five kraft mills in the southern states were erected or purchased. The extensive timber reserves required for these mills have for the most part been assembled. From time to time, as opportunities arise further to improve the company's position, additional construction and acquisition may be anticipated, but the period of major expansion can be considered over and from now on the Company should begin to realize increasingly the benefits from the extensive development work of the past four years.

### Market Conditions

The annual report of the company states that there has been no material change in the news print situation. Prices became stabilized during the spring of 1929 and have maintained the level then established. Consumption of news print in the United States during 1929 increased approximately 6 per cent over the previous year as compared with a 1928 increase of only 3 per cent over 1927. Total shipments by North American mills to domestic consumers and for export increased 8.8 per cent while production increased 8.5 per cent. Due to lessened business activity in the first quarter of 1930, the consumption of news print was below that for the same period of 1929.

### Investments in Newspapers

During 1929, arrangements were concluded for the disposition of all newspaper investments with the exception of one group, the disposition of which is delayed by litigation. These investments were acquired in connection with the sale of news print paper, and the prices already realized indicate that final liquidation of these investments will net a substantial profit in addition to the distinct sales advantages which have accrued from them. No part of the profits on these sales has been included in the 1929 income statement of the company.

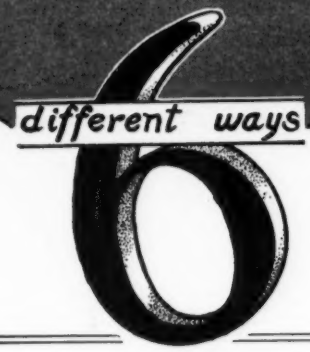
### Outlook

The report further states that while the effect of the present business depression upon volume of business and upon prices cannot be accurately forecast, the company can count confidently upon the development of certain favorable factors during 1930. One of the chief of these is the increase in manufacturing efficiency of the company's news print paper mills. This improvement is continuing and will contribute materially to the company's earnings during the current year. Better water conditions and increasing domestic demand are resulting in improved earnings for New England Power Association. Gatineau Power Company in the fall of 1930 will increase its deliveries to the Ontario Hydro-Electric Commission by more than 100,000 horsepower. The effect of these favorable factors will be increasingly apparent as general business conditions improve.

The first annual report of International Hydro-Electric System shows consolidated earnings for the period from April 1, 1929, to December 31, 1929, after all deductions including in-

# Ross Equipment is now Operating in the West Point, Virginia, mill of ALBEMARLE-CHESAPEAKE CORP.

## to insure the utmost operating efficiency




The new mill of the Albemarle-Chesapeake Corporation in Virginia affords an excellent example of the various ways in which Ross Systems are utilized by successful manufacturers to insure maximum quality and quantity of production. The same progressive policy that installed in this mill the kraft machine reputed to be the largest in the world, also specified Ross Systems throughout to insure proper heating and ventilating for the machine, machine room and various other departments of the mill. This fact is significant.

1. Ross-Grewin High Pressure Air Ventilation on machine to promote general drying efficiency, to even up drying across web and cut felt costs.
2. Ross Ventilating System for machine room roof to prevent moisture.
3. Ross Heating System for the Beater room.
4. Ross apparatus for drying bottom canvass on machine.
5. Ross Unit Heaters for the finishing room.
6. Ross Fire Proof Hood for machine.

The extent of the movement throughout the industry to improve methods of manufacture from a standpoint of greater economy as well as increased efficiency is indicated by the many new installations of Ross equipment. Various types of Ross Systems for heating, ventilating, drying and sulphate recovery have recently been installed at The Brown Paper Mills Co., Fraser Paper Co., Limited, International Paper Co., Scott Paper Co., Mead Paper Co., National Paper Products Co. and others.

*Ross Dependable Service Available For The Smallest As Well As The Largest Requirements.*

## J. O. ROSS ENGINEERING CORPORATION

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## ROSS ENGINEERING OF CANADA, LIMITED

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# ROSS SYSTEMS

HEATING—VENTILATING—DRYING

terest, depreciation, and amount applicable to minority common stocks of subsidiaries, of $1,837,541, which is at the annual rate of $4.25 a share, or over twice the preferential dividend requirements, on the average amount of Class A stock outstanding during the period.

The report further states that current earnings are at a materially better rate than earnings for 1929 as a whole due to increasing contract deliveries by subsidiaries of Canadian Hydro-Electric Corporation, Ltd., and to the normal growth in earnings of New England Power Association. For the months of January and February, 1930, the balance of earnings after all deductions as above amounted to more than three times the preferential dividend requirements on the entire amount of Class A stock now outstanding or at the annual rate of $6.29 a share a year.

International Hydro-Electric System was organized as a Massachusetts voluntary association under a declaration of trust dated March 25, 1929, in order to group the principal power and utility assets controlled by International Paper and Power Company. It acquired from International Paper Company its equities in Canadian Hydro-Electric Corporation, Ltd., and New England Power Association, and on April 17, 1929, purchased an additional block of common shares of New England Power Association, sufficient to give it control of the Association by a large majority. At the close of the year International Hydro-Electric System owned the entire common and second preferred stocks of Canadian Hydro-Electric Corporation, Ltd., and over 82 per cent of the common shares of New England Power Association outstanding and contracted to be issued.

The entire Class B and common shares of International Hydro-electric System are controlled by International Paper and Power Company.

In the year 1929, the output of the properties now constituting International Hydro-Electric System was 3,849,322,000 kw. hours, an increase of 31 per cent over the output of the same properties in 1928, and 86 per cent over their output in 1927.

### Great Electric Power Expansion

The increase for 1929 over 1928 is almost three times the rate of increase for the same period in the combined output of all central station electric power plants in the United States and Canada. This high rate of increase was due chiefly to progressively larger wholesale deliveries by the hydro-electric plants of Canadian Hydro-Electric Corporation, Ltd. Total output in 1929 of this company ran 55 per cent ahead of its output in 1928. The increases in output of the properties of New England Power Association for 1929 over the year previous, 1928, and ten years ago, 1920, were slightly greater than the corresponding figures for the United States as a whole.

The report states that increasing demands for power in the territories served required very substantial additions to the physical properties of operating subsidiaries of International Hydro-Electric System during 1929. Work on the new 200,000 hp. hydro-electric development of New England Power Association at Fifteen Mile Falls on the upper Connecticut River progressed rapidly and additional generators with a capacity aggregating 123,000 hp. were installed in four of the Canadian hydro-electric plants, bringing the System's total capacity installed or under construction up to 1,529,600 hp. of which 1,329,600 hp. (852,100 hp. hydro-electric) is now in operation.

Dividends on the Class A stock were initiated on July 15, 1929, by the payment in stock of one-fiftieth of a share of Class A stock for each share held. Shareholders have been given the option of taking fifty cents in cash in lieu of each one-fiftieth of a share of stock so issuable as dividends. This is equivalent to a stock dividend at the rate of 8 per cent of a share per share per annum with the option of taking cash in lieu thereof at the rate of $2 per share per annum.

## Canada's Paper Exports Decline

Canada's exports of pulp and paper in February were valued at $13,547,933, according to the report issued by the Canadian Pulp and Paper Association. This was a decline of $2,458,409 from the previous month and was less than the total for February 1929 by $852,009.

Exports of wood pulp for the month were valued at $3,567,070 and exports of paper at $9,980,863 as compared with $3,923,584 and $12,082,758 respectively in January, there being a decrease of $356,514 in the value of wood pulp exported and of $2,101,895 in the value of paper exports.

Details of the various grades for the month were as follows:

| | February, 1930 | | February, 1929 | |
|---|---|---|---|---|
| PULP: | Tons | $ | Tons | $ |
| Mechanical | 14,775 | 435,126 | 9,927 | 276,333 |
| Sulphite bleached | 24,816 | 1,815,782 | 20,758 | 1,598,373 |
| Sulphite unbleached | 14,937 | 751,669 | 14,427 | 712,662 |
| Sulphate | 9,446 | 521,789 | 9,682 | 582,584 |
| Screenings | 2,537 | 42,704 | 1,343 | 28,876 |
| | 66,511 | 3,567,070 | 56,137 | 3,198,828 |
| PAPER: | | | | |
| News print | 163,204 | 9,418,742 | 174,469 | 10,615,726 |
| Wrapping | 1,434 | 151,041 | 1,665 | 187,762 |
| Book (cwts.) | 4,041 | 37,336 | 7,944 | 59,438 |
| Writing (cwts.) | 215 | 3,084 | 1,039 | 8,596 |
| All other | ..... | 370,660 | ..... | 329,592 |
| | ..... | 9,980,863 | ..... | 11,201,114 |

For the first two months of the year the exports of pulp and paper were valued at $29,554,275 as compared with $30,536,140 in the first two months of 1929.

Wood-pulp exports for the two months amounted to $7,490,654 and exports of paper $22,063,621 as against $6,843,982 and $23,692,158 respectively in the corresponding two months of 1929.

| | Two Months, 1930 | | Two Months, 1929 | |
|---|---|---|---|---|
| PULP: | Tons | $ | Tons | $ |
| Mechanical | 36,595 | 1,085,822 | 26,698 | 696,395 |
| Sulphite bleached | 46,435 | 3,497,412 | 44,086 | 3,372,286 |
| Sulphite unbleached | 34,993 | 1,744,771 | 29,017 | 1,445,108 |
| Sulphate | 19,050 | 1,078,298 | 20,988 | 1,258,253 |
| Screenings | 4,748 | 84,351 | 3,530 | 71,940 |
| | 141,821 | 7,490,654 | 124,319 | 6,843,982 |
| PAPER: | | | | |
| News print | 362,977 | 21,028,668 | 369,516 | 22,589,341 |
| Wrapping | 2,633 | 279,317 | 2,923 | 320,600 |
| Book (cwts.) | 8,081 | 70,328 | 13,461 | 108,585 |
| Writing (cwts.) | 321 | 3,801 | 1,060 | 9,336 |
| All other | ..... | 681,507 | ..... | 664,296 |
| | ..... | 22,063,621 | ..... | 23,692,158 |

Exports of pulpwood for the first two months of the year amounted to 258,336 cords valued at $2,400,358 which was an increase over the two months of 1929 when the total was 192,549 cords valued at $1,732,992.

## Detroit Sulphite Co. Insures Workers

A group life insurance policy has recently been acquired by the Detroit Sulphite Pulp and Paper Company, of Detroit, Mich., for the protection of its 336 workers. The policy was issued by the Prudential Insurance Company of America and involves a total protection of $920,000.

Each worker receives protection in amounts ranging from $1,000 to $10,000, acording to the rank or position held, and this policy is of the contributory type, the workers themselves paying a part of the premiums and the Detroit Sulphite Pulp and Paper Company assuming the remainder of the expense.

## J. T. Johnston Gets Patent for Paper Rolls

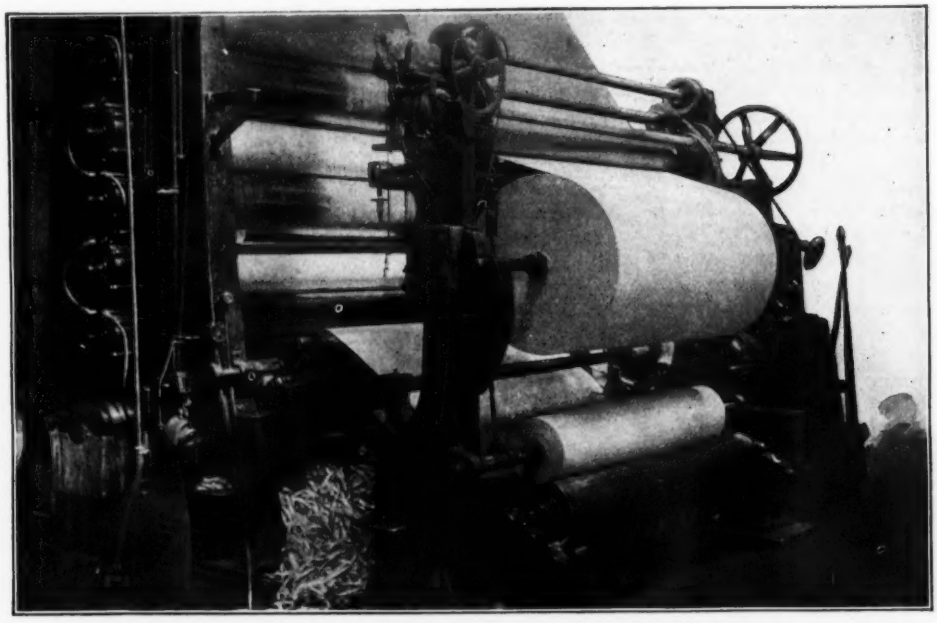
[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., April 8, 1930.—James T. Johnston of Northampton street has been granted a patent for a covering for paper rolls it is claimed that will improve the present methods. Hitherto the finish required has been made by a roll that was changed when another finish was desired; this patent is for a removable covering so that the same roll may be used for many kinds of finish, the covering and not the roll being changed. The American Writing Paper Company, Inc., has acquired the rights for this roll.

# "M & W" Drum Winders for Super-Calenders

## PERMITS FASTER SPEED FOR CALENDERING

***Shipping Rolls are made direct from Supers without rewinding the Rolls***



**Two-Drum Type Winder (Photograph taken in one of the mills of the Kimberly-Clark Co.)**

## Built with Two or Four-Drums Makes use of wide stacks desirable

Rolls trimmed direct from Super-Calenders —(retrimming unnecessary).

Rolls readily changed from winding drums to unwinding shaft by means of self-contained electric motor lift.

Straight, hard rolls are made without wrinkles . . . no soft rolls or telescoped ends.

Winders equipped with automatic tension regulation to eliminate paper breaking between calender and winder . . . and to regulate the hardness of rolls to be wound.

For wide stacks of Calenders, the "M & W" Four-Drum Super-Calender Winder reduces the waste of finished product to a minimum.

All features of the well-known "M & W" Four-Drum Winder used for making shipping rolls direct on paper machine are retained—such as independent winding of rolls on independent shafts, etc.

**"M & W" Four-Drum Super-Calender Winders equipped with Removable Top and Bottom Slitters. "M & W" Brass Collapsible Winding Shafts are the latest improvement for High Grade Mills.**

**Further Particulars Upon Request**

The MOORE & WHITE Co.
PHILADELPHIA, PA.
N. PHILA. STA. PENNA. R.R.
PAPER MILL MACHINERY

**Patents Pending for Recent Improvements to "M & W" Drum Winders**

# A Modern Paper Mill in Mexico*

Among the foothills of the Ixtlaccihuatl mountain lies the San Rafael Paper Mill (Fig. 1) with its little community of workers. In their setting of heavily wooded hills, the buildings of the plant and community harmonize with the beauties of nature, presenting a scene of unusual attractiveness. But the harmony of nature's loveliness and man's achievement is not the only concordance which is a tribute to the spirit of the San Rafael mill. There is the harmony that exists between employee and employer—a condition significant of modernity in personnel supervision.

The San Rafael mill is modern—modern in spirit and equipment. The facilities for benefiting the employee's welfare and the efficient manufacturing equipment are both evidences of the progressiveness of the company. By establishing a community in which living quarters are furnished to workmen, educational opportunities are offered to the employees and their families, and facilities for amusements and sports are provided for all, the management has formed an institution unsurpassed by any similar organization in the world.

The living quarters for the workmen are shown in Fig. 2. Separate houses have been built for the foremen. Hotel quarters are provided for the bachelor employees. This model village has an up-to-date dry goods store, markets, public baths, restaurants, and a drug store, all run on the cooperative plan. A superb community hall has been built for the benefit and pleasure of the personnel. The company maintains, in addition to two separate schools, one for boys and one for girls, a night school for workmen. The attendance in these schools is over six hundred; about 250 boys, 200 girls, and 150 workmen attending the night course. There is also a special course for teaching sewing and knitting to girls and young women.

Two casinos have been formed by the employees and their headquarters are in the hotel building and in the top story of the building used for general merchandise store. Here they have billiard rooms, reading rooms, radios, and dance halls. In connection with these establishments, there is an extensive playground made in the central part of the cedar forest and furnished with facilities for playing games of all kinds. A sporting club with a membership well over four hundred is located in the new extension of the town. The club possesses a magnificent swimming pool, football and baseball fields, basketball court, tennis courts, fronton courts for playing handball, and an outdoor gymnasium and track.

The manufacturing equipment is in accord with the spirit of progress and modernity displayed by the community work. The mill, which is the largest and most modern paper mill in Mexico, with a daily production of 450,000 lbs. (200,000 kilos), has been electrified to a greater degree than any other mill in Mexico, and further electrification of its processes is planned.

The San Rafael mill is ideally situated, located as it is in the foothills of Ixtlaccihuatl mountain, in the Chalco district, close to timber resources and potential water power sites. The extensive timber lands at the foot of the Popocatepetl volcano, are connected to the San Rafael Mill by means of the San Rafael and Atlixco Railroad, which is partly owned by the San Rafael Paper Company. A portion of the power needed to run the plant is obtained from generating stations at the water falls on the stream supplied by the thawings of the snow on Ixtlaccihuatl mountain. The remainder of the power is received from nearby power companies.

FIG. 3.
**View of some of the wood grinders.**

Several processes in the San Rafael Mill are already completely electrified: the grinding process in the wood pulp mill, the beater machines in the paper finishing process, and the drives of three of the eight paper machines. Other drives are partially electrified and the electrification of others is contemplated. In the ground wood mill, which is shown in Fig. 3, each of the thirteen pulp grinders is directly coupled to a synchronous motor. Six of the thirteen motors are Westinghouse 1000 hp. synchronous motors, which were originally designed for 440-volt service, but are now being rewound for 6600 volt service, and will be controlled by Westinghouse automatic starting equipment. Fig. 4 shows one

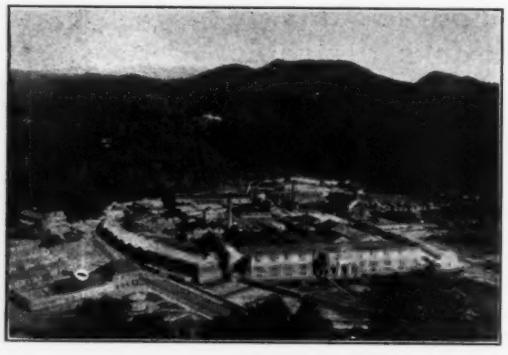


FIG. 1.
**General view of the mill.**

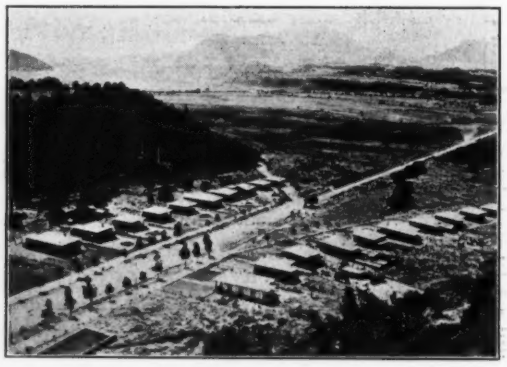
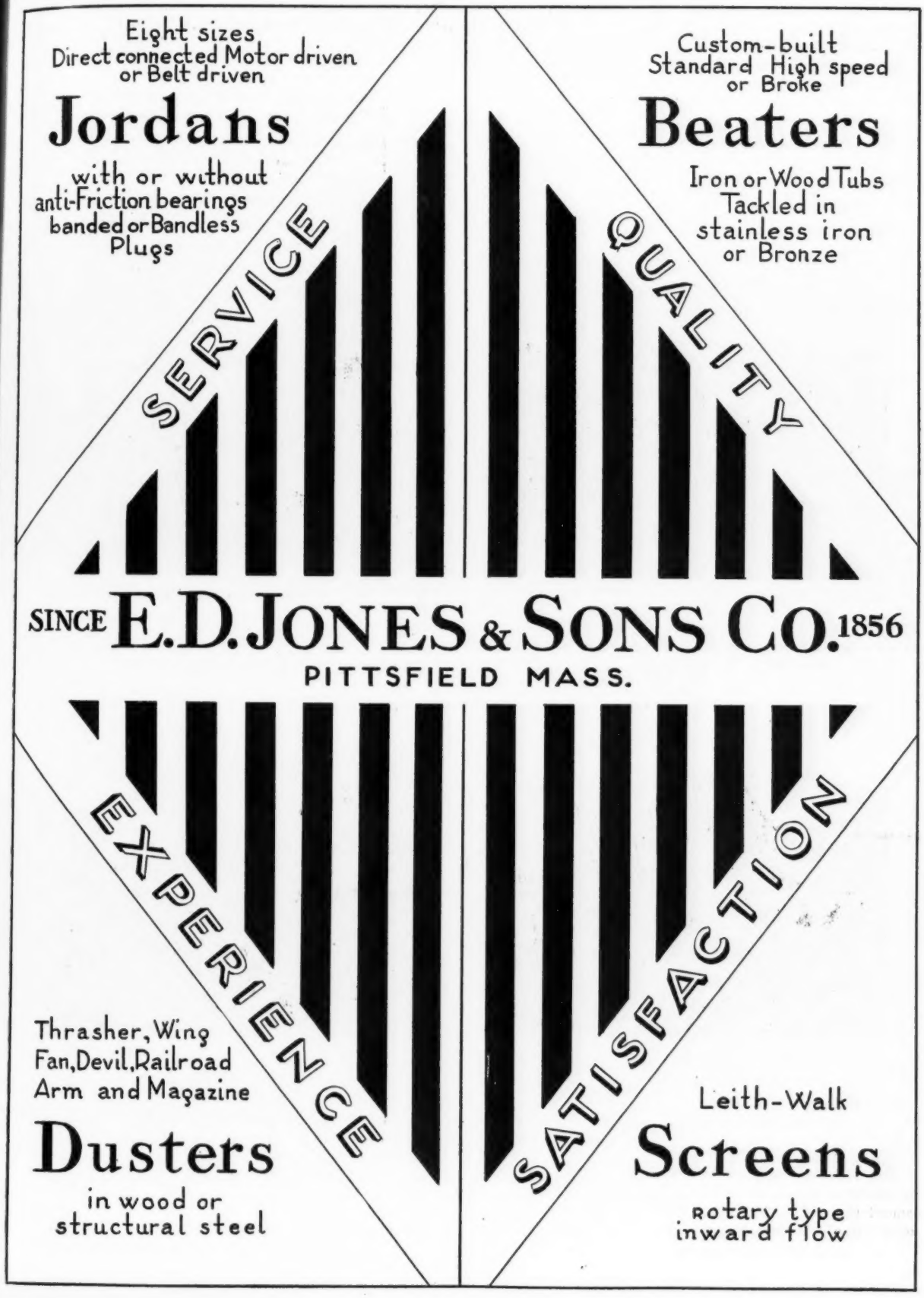


FIG. 2.
**View of new town under construction.**

* From an Interview with Ing. Jose De La Macorra Jr., Director Technics De La Cia. de Las Fabricas de Papel de San Rafael Y Anexas, S. A.


Eight sizes
Direct connected Motor driven
or Belt driven
Jordans
with or without
anti-Friction bearings
banded or Bandless
Plugs
Custom-built
Standard High speed
or Broke
Beaters
Iron or Wood Tubs
Tackled in
stainless iron
or Bronze
SERVICE
QUALITY
SINCE E.D. JONES & SONS CO. 1856
PITTSFIELD MASS.
EXPERIENCE
SATISFACTION
Thrasher, Wing
Fan, Devil, Railroad
Arm and Magazine
Dusters
in wood or
structural steel
Leith-Walk
Screens
Rotary type
inward flow

of the six Westinghouse synchronous motors used in driving the grinders.

The 32 beater engines are all driven by a lineshaft located in the basement underneath the beater room. Driving the lineshaft is a Westinghouse 750 hp. synchronous motor of the magnetic clutch type, operated on 6600 volts and controlled by an automatic starting panel. In case of failure of the power supply, an emergency generator is located in the basement of the beater room. The emergency generator consists of a hydraulic turbine coupled to a Westinghouse 625 kv-a. generator, as shown in Fig. 5.

Three of the eight paper machines are equipped with electrical drives. The number 2 machine is equipped with a direct-current variable voltage drive, using a 290 hp. d-c. motor to drive the line-

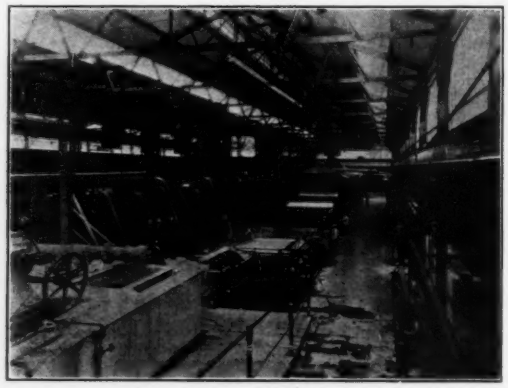


FIG. 4.
**Machine No. 3, a wrapping paper machine.**

shaft. A three unit generator set supplies the power for this unit. The three unit generator consists of a steam turbine directly coupled to and driving a synchronous machine, and a d-c. adjustable voltage generator. The synchronous machine is permanently connected to the incoming power line so that it may be operated as either a motor or a generator, depending upon the load conditions. Machines numbers 6 and 7 also have electrical drives; however, they are driven by a-c. induction motors.

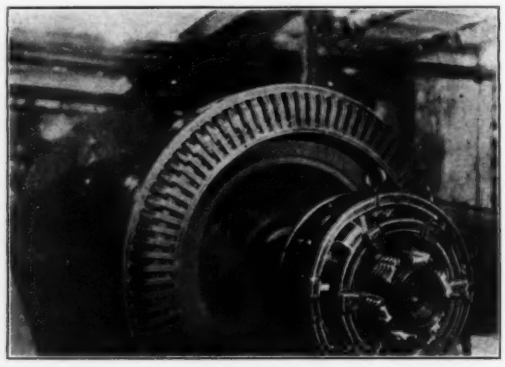


FIG. 5.
**Westinghouse 625 kv-a. generator.**

The San Rafael Mill has two sources of supply for its power, their own generating station and the Puebla Tramway, Light, and Power. The substation receives power from the power company at 30,000 volts and from the private generating plants at 3,000 volts and distributes it at 440 volts. Most of the electrical equipment in the substation was furnished by the Westinghouse Electric International Company. This substation, Fig. 6, is now being redesigned. It will become the point of secondary distribution, and will control all incoming and outgoing feeders at 6600 and 440 volts. The primary substation, when completed, will transfer purchased power from 111 kv. to 6.6 kv. The private generating plants will be redesigned to generate power at 6600 volts instead

FIG. 7.
**Water fall in garden of mill.**

of 3000 volts. The new designs for all changes and additions are being worked out by the San Rafael engineers in cooperation with engineers from the Puebla Tramway, Light, and Power Company and the Westinghouse Electric and Manufacturing Company.

The five private generating plants are situated at the five waterfalls which are in the vicinity of the mill. The first and biggest

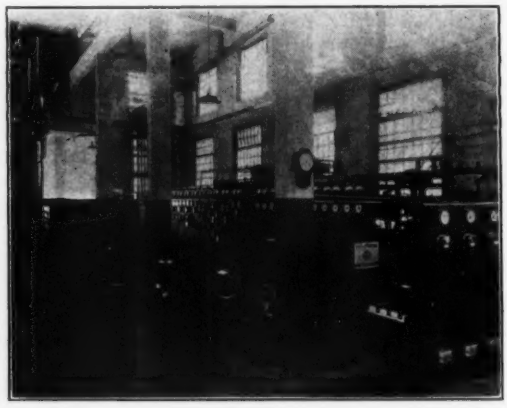


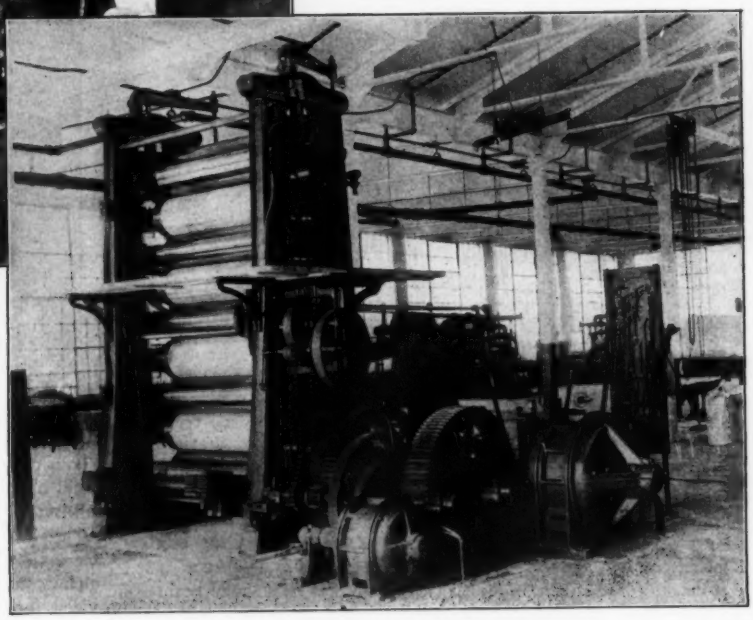
FIG. 6.
**View of the present substation.**

of these falls, which is about 1300 feet high (400 mts.), is located about 4 miles from the mill and generates about 750 hp. The second fall, over 1,000 feet high (320) mts.), generates about 2000 hp., and is 1½ miles distant from the mill. The third waterfall is the smallest, having a height of 200 feet (62 meters); it generates 540 hp. The fourth, located at the mill, is 500 feet high (150 mts.), and generates 850 hp. The last one of these falls (Figure 7) is a 330 foot fall (100 mts.) generating 800 hp. The generating

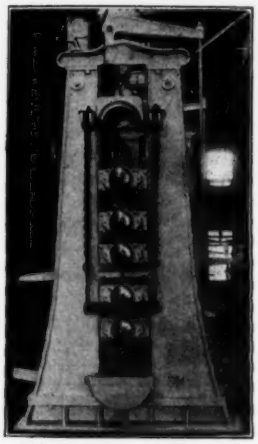
A modern finishing room equipped with Norwood's modern Super-Calenders

# NORWOOD Super-Calenders

## Will Give You MAXIMUM FINISHING EFFICIENCY



A modern Norwood Super-Calender with two-motor drive.



Roll support on the Norwood Super-Calender, showing arrangement used to raise and support the rolls over a roll to be removed.

*Write for this useful book on Paper Finishing Machinery if you haven't already received your copy*

### *There's Real Engineering Back of Them!*

NORWOOD Super-Calenders are kept abreast of constantly changing conditions in the industry by the close co-operation of Norwood's engineers with paper mill men. Such engineering features as Norwood's frame construction, roll lifting arrangement, hydraulic pressure device, oiling system and other modern features show a sympathetic understanding of the mill man's problems—and an engineering answer to those problems which translates itself into greater production, economical finishing, more assurance of continuous operation and less need of the superintendent's personal attention. Check your finishing machinery against the latest machines shown in "Norwood Paper Finishing Machinery," or better still, call in our engineers to discuss your finishing machinery problems and give you the benefit of their knowledge and long experience.

**NORWOOD ENGINEERING COMPANY**

***17 No. Maple Street, Florence, Mass.***

# NORWOOD

**Filters . Calenders . Platers . Dusters . Rag Thrashers . Folding Machines . Suction Boxes**

station of this last fall is located close to the station of Zavaleta, on the San Rafael and Atlixco Railroad.

The plant has both the wood pulp mill, and the sulphite mill with its supplementary acid plant.

At the San Rafael Mill the thirteen wood pulp grinders are all electrically driven by individual motor drives. Besides the thirteen grinders, there are all the machines necessary for screening, thickening, and lapping the stock produced by the wood grinders. A distinctive feature of this pulp mill is the unique gravity flow of the pulp from the grinders to the pulp-thickeners and wet-machines. Fig. 8 shows some of the wet-machines in the ground wood pulp

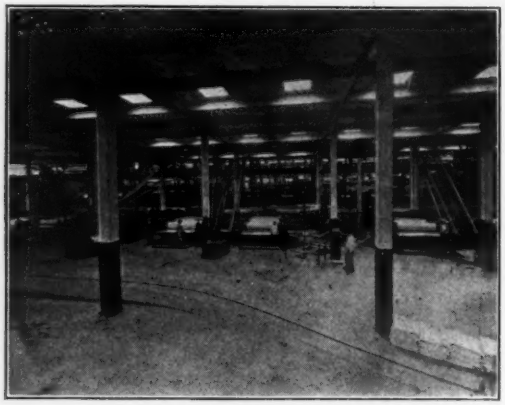


FIG. 8.
View of wet machine in ground wood department.

department. The pulp produced does not pass through a single pump in its passage from the grinders to the wet-machines and thickeners. Also worthy of mention is the especial arrangement of machinery which permits the production of two distinctive kinds of ground wood at the same time, with facilities for using any knotter, any sliver screen, any centrifugal screen, any thickener or wet-machine for either of the two classes of pulp that may be in process.

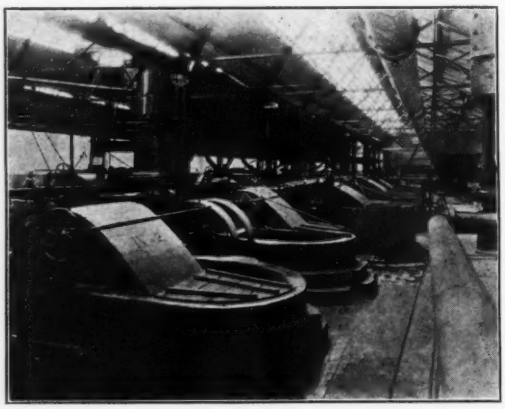


FIG. 10.
A close-up view of the beaters.

In the sulphite pulp mill is included not only the actual equipment for the production of chemical pulp, but also the appliances by which the pulp is washed and freed from impurities before it enters the beater engines. The bisulphite of lime solution produced in the acid plant is utilized for cooking wood chips in five digesters.

The digester rooms, as well as the screen rooms of the sulphite mill, have a capacity for a production in the neighborhood of 50,000 lbs. (25,000 kilos) of strong common sulphite and 40,000 lbs. (20,000 kilos) of easy bleaching pulp per day. The installation in the sulphite mill has been completely modernized and equipped with the best machinery manufactured. Up-to-date processes have been adopted for the production of this indispensable raw material required for the manufacture of paper.

The old acid plant has been replaced by equipment devised from experience acquired in recent years and commonly known as the Tower Acid System. The site of this plant was chosen on the hill back of the mill, conveniently located so that the production will travel by gravity toward the sulphite mill. A building 100

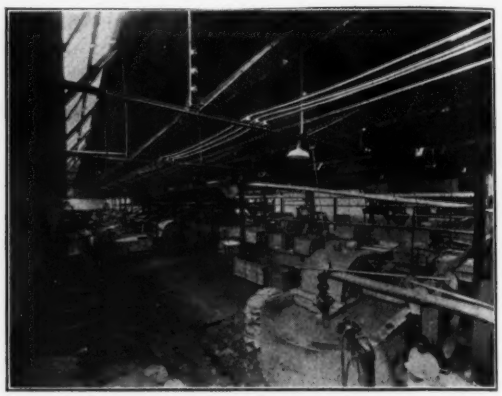


FIG. 9.
View of the main battery of beaters.

feet long and 36 feet wide (30 x 11 meters) has been constructed for housing the machinery employed for the manufacturing of the acid liquor technically known as bisulphite of lime. The acid liquor is stored in four wood tanks with a combined capacity of 200,000 gallons (850,000 lts.).

The building has been divided into three different departments —sulphur storage, burner and acid room. Ample space has been provided for accumulating 1200 tons of sulphur, sufficient for an output of almost 10,000 tons of sulphite pulp. In the burner room, sulphur is ignited to form sulphur dioxide gas, and the gas, after passing a lead cooler particularly designed for the purpose, is

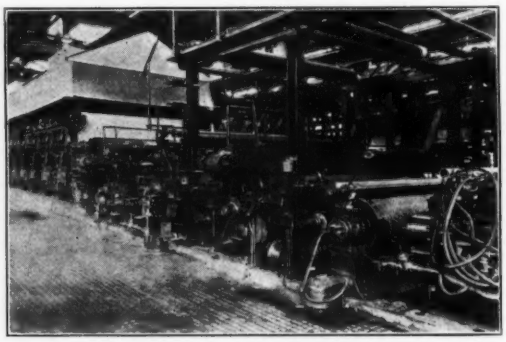
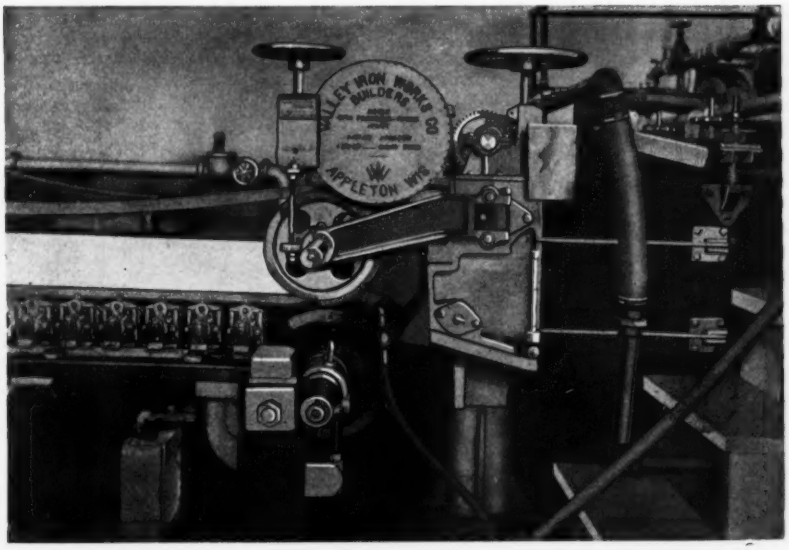


FIG. 11.
New paper machine—wet end.

blown by an acid resisting fan through the towers which work in series. The towers are 80 feet high and 7 feet 6 inches in diameter (24.00 x 2.25 mts.) and are internally lined with acid resisting tile blocks and filled with lumps of limestone or dolomite. A railroad line at the back of the building transports the large quantities of limestone and sulphur required for the operation of the acid plant. An electric elevator running between the two towers hauls up the limestone with which the towers are loaded.




# HEAVY STOCK AT SLOW SPEEDS
## *LIGHT STOCK AT HIGH SPEEDS*

**Now, through new features of construction, the 1930 Voith High Pressure Stock Inlet offers you all of the advantages of operation on heavy papers at slow speeds that it has, and still does, on lighter papers at high speeds.**

**Your Yankee . . . Harper . . . Fourdrinier . . . now deserves the right to the advantages of the Voith Inlet more than ever before. The quality of your paper deserves it. The profits of your mill deserve it. And certainly your desire for progress demands it.**

**The whole story of what this machine can do for you in the way of better formation, better control of weight uniformity, and better all around performance cannot be told to you here. You can, however, have all the facts laid before you by writing the Valley Iron Works Co., Appleton, Wisconsin.**

*"Quality is remembered long after Price is forgotten."*

**VALLEY**

**Equipment for Paper and Pulp Mills**

New York Office: 350 Madison Ave.
Western Manufacturing & Sales Division: Smith & Valley Iron Works Co., Portland, Oregon.
Canadian Representatives: Pulp & Paper Mill Accessories, Ltd., Montreal, Canada.

At the San Rafael plant, 32 beating engines are used and all are driven by lineshafts located in the basement. Fig. 9 gives a view of the main battery of beaters in the beater room. The beaters are shown in Fig. 10, where the various ingredients used in making paper are mixed to produce the required grade of paper. A number of stuff chests receive the stock from the beaters preparatory to sending it to Jordan refining engines. These chests are located in the basement, together with 12 concrete tanks for ground wood pulp slush.

In the machine room, Fig. 11, are eight paper making machines. The three biggest were made by Pusey & Jones Corporation, of Wilmington, Del., and the Beloit Iron Works, of Beloit, Wisc. Each has a daily capacity of 110,000 lbs. (50,000 kilos) of paper. These three machines alone have an ample capacity for an output of more than double the amount of paper consumed by all the newspapers in the Republic of Mexico. The biggest of these three

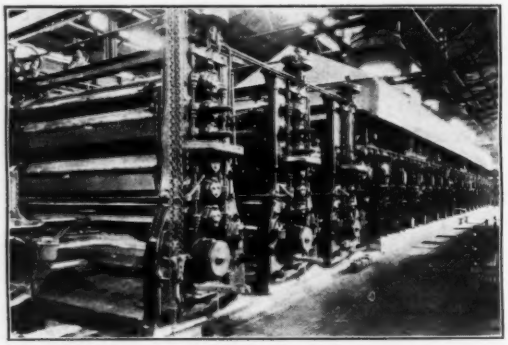


FIG. 12.
**New paper machine—dry end.**

machines has a basement rope drive, a very modern feature of the equipment.

Shown in Fig. 13 is the number 1 machine, a news print machine built by Pusey & Jones, which has a steam drive and a cable transmission. The number 2 machine, a book machine, is a Beloit, driven by a 290 hp. d-c. motor and lineshaft. The number 3 machine, shown in Fig. 4, is the wrapping paper machine; it is driven by steam and has a belt transmission. The five remaining

FIG. 13.
**A view of the paper machines.**

machines are made by various European manufacturers and are used for all kinds of papers; such as, wrappings, manilas, cardboards, book, catalogue, magazine, rotogravure, color papers, etc. The production of these five machines is in the neighborhood of 90,000 lbs. (40,000 kilos), thus making the daily production for the whole mill to be almost 450,000 lbs. (200,000 kilos). At one end of the Machine Room are the super-calenders which give a final finishing to the surface of some qualities of paper made.

In front of the machine room is a great finishing room, measuring approximately 500 feet long (125 mts.) by 150 feet wide (45.00 mts.). This department is one of the largest of its kind in the world, and as a figure for comparison, 30,000 people can be placed underneath its roof. The work of the finishing room is divided into two general classifications, each of which is further

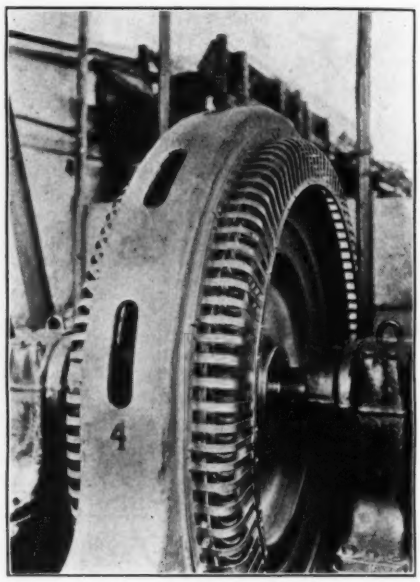


FIG. 14.
**One of six Westinghouse 1,000 hp. synchronous motors.**

subdivided. The two main classifications are making paper into rolls and into sheets. Rolls are shipped practically as they are made by the paper machine; but in preparing sheets, the operation is more tedious and requires more operators. Fig. 15 shows a view of some of the small winders, cutters, etc. In the cutting department are located eight single and duplex slitting and cutting

FIG. 15.
**General view of the small winders.**

machines, two guillotine cutting machines, four folding machines, three printing presses, six reeling or winding machines, one pasting machine, and one waxing machine. Fig. 16 gives a view of the cutting department.

Under the finishing room there is a storeroom for paper which covers about 40,000 square feet (4,000 mts.), part of which is taken up by the adjoining packing and shipping departments. All along the front of the finishing room there is a railroad track used

LATENT PROFITS LIE *WITHIN* THE WALLS OF EVERY PLANT

*The prospector of a rougher day has become a symbol of a bygone era. But 1930 has his counterpart . . . and needs his tireless spirit more than any recent year. The prospector of today is the plant manager who has discovered gold within the walls of his own factory . . . who is achieving new ways of increasing net earnings.*

# Load increased 15%
## *Lubrication costs cut 29%*

Shell *applied lubrication* scores again. The chief engineer of a large bottle manufacfacturing plant* in northern Illinois writes:

"In conclusion, will state that we have a minimum wear, well oiled equipment, very good valve and piston seal and a well oiled plant at a minimum cost for good oils. Competitive brands for a 3-year period, 1923 to 1926, not counting the loss in time and testing and trying out oils and making changes, cost us $2585.33; and from 1926 to 1929, a period of 3 years, with Shell Oil we were able to lubricate the plant with a 15% more load for $1696.10, a saving of $879.23, or 29.44%."

With this company, aswith many other industrial institutions, *applied lubrication* developed by Shell engineers has pointed the way to reductions in operating cost, and has thereby increased earnings by amounts ranging from a few hundreds to many thousands of dollars annually.

If you feel the need for skilled counsel to help you eliminate losses in your plant due to interruptions in production, excessive tool changing, wasted oil, unbalanced oil stocks, and the other accompaniments of less-than-100% lubrication, call on Shell engineers. There is no obligation involved in a frank talk with them. Simply write or 'phone the nearest Shell office.

SHELL PETROLEUM CORP., ST. LOUIS

* Name on request

SHELL

Applied Lubrication

© S. P. C., 1930

specially for the shipment of paper. A huge dock that has been built on one side of this track enables ten railroad cars to be loaded at the same time. The front part of the building is constructed of doors and windows which can be opened simultaneously to allow passage for large bulks of paper. The efficiency of a modern finishing room depends largely on the equipment installed for handling the rolls and bundles of paper. In this connection, San Rafael can boast of an up-to-date establishment furnished with floor scales, hydraulic elevators, and other equipment for efficient production.

FIG. 16.
**View of the large sheet cutters in the paper building.**

A chemical laboratory attached to the mill is equipped with the most modern instruments for paper-making research. Here, in addition to the usual trial beaters, roll mills, and various fiber testing machines, are many valuable instruments for experimenting with gloss, sizing, color comparison, and density of paper. Microscopic examination is made of the various fibers by camera or screen projection.

The San Rafael Mill has been provided with plenty of store houses which are indispensable for all the supplies necessary for the life of the mill. There are seven distinct big groups as well as many smaller ones. The total surface covered by warehouses is approximately 150,000 square feet (15,000 square meters). All this storage capacity has been built in accordance with insurance regulations.

FIG. 18.
**View of the boiler plant.**

The water used for the manufacture of paper comes from the mountain Ixtlaccihuatl, traveling throughout more than 20 miles (30 kmts.) in masonry canals and tunnels. This water carries in suspension certain impurities which are detrimental in paper manufacturing. Therefore, there is an extensive installation of water reservoirs and sand filters for purifying the water furnished to the paper machines. These reservoirs, which have a capacity of more than 5,000,000 gallons (20,000,000 liters) of water, are surrounded on either side by a picturesque and extensive garden and an Alameda of trees.

Rising sharply behind the factory is a hill with a water reservoir containing more than 600,000 gallons of water (3,000,000 liters) and located almost 500 feet above the mill. A 36 inch penstock tube carries this water to the mill where it operates water turbines. The overflow from this reservoir falls down the side of the hill through a concrete canal which is made in two divisions. The first one is 250 feet long (75 mts.) and is subdivided into nine small falls, each about 15 feet high (5 mts.); the second is a straight canal 350 feet long (110 mts.) and terminating at a point 50 feet (15 mts.) above the ground, thus forming a very attractive waterfall.

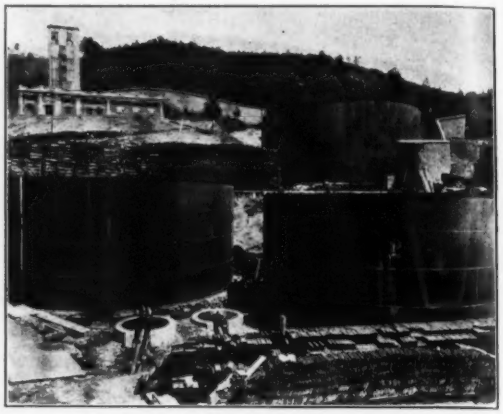


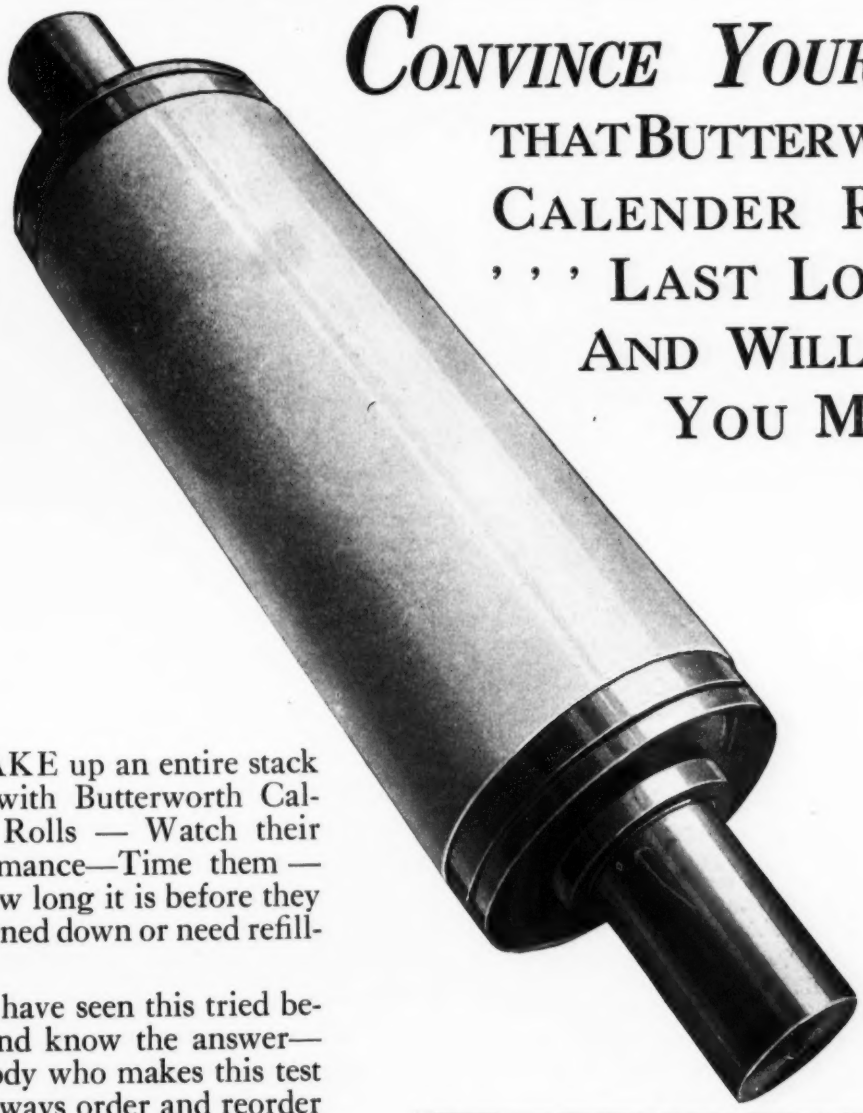
FIG. 17.
**View of the new fuel oil tanks.**

The mill has two splendid groups of steam boilers. In the old group, with four boilers, all the factory wastes are utilized for generating steam for drying purposes. The other group has six oil burning Babcock & Wilcox water tube boilers connected with two Green economizers. Three large steel tanks of 75,000 barrels capacity (12,000,000 liters) furnish, by gravity, the fuel to the oil feed pumps. The storage tanks, shown in Fig. 17, have a suitable line to enable railroad tank cars to unload by gravity. The boiler house is up-to-date in every detail, having steam meters, water

FIG. 19.
**General view of the machine shop.**

*(Continued on page 53)*

# CONVINCE YOURSELF THAT BUTTERWORTH CALENDER ROLLS ,,, LAST LONGER AND WILL SAVE YOU MONEY



MAKE up an entire stack with Butterworth Calender Rolls — Watch their performance—Time them — See how long it is before they are turned down or need refilling.

We have seen this tried before and know the answer—Anybody who makes this test will always order and reorder

BUTTERWORTH CALENDER ROLLS

**H. W. Butterworth & Sons Co.**

*Established 1820*
PHILADELPHIA, PA.
Plants at Philadelphia and Bethayres, Pa.
NEW ENGLAND OFFICE:
Turk's Head Bldg., Providence, R. I.
SOUTHERN OFFICE:
Johnstown Bldg., Charlotte, N. C.
IN CANADA:
W. J. Westaway Co., Hamilton, Ont.

**FEATURES**

Hammered steel heads and shafts, taper wedges and the best grade of cotton and paper—plus fifty years of experience and several tests before shipping—That's what builds quality into Butterworth Calender Rolls! And this is what saves you money when you use them.

# BUTTERWORTH *Calender* ROLLS

## Age Versus Youth

24 George St., Cohoes, N. Y.
March 29, 1930

Editor, PAPER TRADE JOURNAL:

I am a papermaker fifty years old and have spent twenty years in paper mills making all grades of papers from cigarette to hanging on machines varying in speed from 100 feet to 500 feet per minute. My experience has given me a knowledge of papermaking from the winder to the beater room on such grades as rag, sulphite, wood, and rope, that make up the following widely known A. No. 1 grades which are used exclusively by the U. S. Government and which must stand the test in durability, fold, Mullen test, salt water, and climate, so essential to foreign shipments: rag bond, envelope, chart, ticket, ledger, typewriting, carbon copying, etc.

Also, the following sulphite and wood grades in M. F. and S. C. book, litho, writing, tablet, mimeograph, steeltex, weartex, coating, drawing, news lining, book covers, index, ripple, chromatic, nitrating and hanging. I spent five years on an experimental machine making paper from straw, corn stalks, Japan grass and shoe cuttings. Some of these papers were stained on the driers and some were colored on the wire and couch roll.

These grades were made on a straight Fourdrinier, but the wire was changed according to the grade as follows: 14 mesh for cigarette, 90 to 100 mesh for toweling, napkin and bread wrapper, while 60 to 70 mesh was used making book, bond, etc.

During this time while on nights and where I have had full charge of mill, I have often been called upon to do construction and electrical work, together with sewing or putting on wires, darning felts, taking up belts, and on one occasion I sewed three and one half inches of wire against time in forty-five minutes. This sewing did not rip out during the remaining two weeks the wire was on the machine. I have run machine producing from 250 pounds on cigarette to 4,000 pounds on hanging.

Now that you have an idea of just what a man fifty years old has done and can still do, and I might mention that I have no ax to grind, I will welcome letters from manufacturers stating just why they will not employ men with experience who are capable of meeting a crisis when it occurs and who do not go about their work groping in the dark while the overhead runs up and the bank account runs down.

From a man who was refused a job because he was over forty years old.

Yours truly,

W. F. STRANG.

## News of the Chicago Paper Trade

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., April 7, 1930.—H. S. Adler, secretary of the Paperboard Industries Association, announced last week that the next meeting of the association will be held in Chicago, at the Drake Hotel, May 21 and 22. Committee meetings, including executive sessions, will be held on the 20th, one day prior to the general program, as in the past. The schedule of meetings will follow much on the same lines as past meetings with the Paperboard Group, the Container Group and the Folding Box Group meeting in individual sessions with the General Meeting, and probably including the Trade Practice Session, held on the second day. In announcing the Chicago meeting Mr. Adler again put some stress upon the situation existing in the industry that calls for active participation in association deliberations. The association is anxious for its members to get first hand information as to just what is being done and what should be done to improve conditions in the industry. The coming meeting in Chicago is being designed for this purpose.

The West Virginia Pulp and Paper Company this past week issued its Mill Price List on Westvaco Brands as of April 1, 1930. The quarterly issuance of the Westvaco Brands includes the customary sixteen pages plus the description of conditions of sale which assist in making each issue a complete line on methods of conducting business with that organization.

A clever little four page—double—booklet was issued this week by the Seaman Paper Company, describing the qualities and characteristics of Sea Foam Bond, manufactured by the Brownville Paper Company, of Brownville, N. Y. The cover carries the intriguing title "Listen! Mr. Hardboiled P. A." says Mehitable. And inside is the stenographer, Mehitable's, own arguments for Sea Foam Bond. It puts the selling talk in an interesting and profitable light.

The Chicago Paper Company and the Swigart Paper Company, distributors in this territory for Linweave Paper, are finding the modern trend of advertising particularly interested in this line which includes Vellums, Book papers, Writings, Specialties and Novelty papers.

## Boston Paper Market Conditions

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., April 7, 1930.—Chaotic conditions in the kraft market are among the features of the wholesale paper situation. The tendency is still downward. Wrapping paper is rather weak, and distributors are inclined to be conservative until the situation becomes clarified. With prices being reduced by manufacturers in keen competition the effect on products such as bags, is naturally felt. Some, however, report an increased business in kraft.

The status of the fine paper market appears to be at least fairly satisfactory. In some quarters business is said to be very good, with a favorable outlook. Other comments are "fair," "not bad," and "a steady increase."

Specialty lines continue in a satisfactory position as a whole. These include certain kinds of paper bags, and special forms of cartons handled by some paper dealers.

The box board market continues good with prices unchanged. A particularly good demand is reported to have come of late from manufacturers of shoe boxes, undoubtedly stimulated by the proximity of the Easter season.

Old papers continue quiet and weak, with a surplus of some grades on hand. It is reported that 600 tons of mixed papers in the Boston market were recently burned on a Dorchester dump by a number of prominent dealers, partly because they occupy so much space in warehouses which could be used for higher-priced grades of stock. If reducing the supply is considered, dealers say that 600 tons would be only a drop in the bucket. Although rags are not very active, they are possibly in a somewhat better position than old papers, at least some grades of rags. Roofing rags tend downward. A large New England consumer of this commodity is said to be entirely out of the market at the present time.

## Chicago Paper Market More Active

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., April 7, 1930.—Some improvement was made in the Chicago paper market during the past week. A touch of genuine spring weather aided materially in increasing over-the-counter sales and created the first real spring market yet experienced so far this year. Fine papers, falling somewhat behind last week, picked up during the past seven days and should grow increasingly stronger at least from now until after the second quarter of the year ends. Ground woods are going into a materially stronger market with strengthening going on all along the line. Kraft papers, according to Chicago reports, have only improved their position in so far as there is somewhat less publicity being given its seriousness. A great quantity of production will have to be absorbed before the market is materially benefited. Book papers are firm and the market steady. Tissues are improving and should run one of their best markets of the year from now until after Easter. The board market continued to improve its technical position although reports indicate that the price situation is not at all to the liking of manufacturers. Waste papers were active.

# "Improve your product and reduce your costs with a Marcy Rod Mill"

## *says* SIDNEY D. WELLS

*Director of the*
*Paper Mill Laboratories,*
*Quincy, Illinois*

"THE LARGE OPEN DOOR of the Marcy Rod Mill gives the paper maker *absolute control* of the beating operation because he can easily observe what is taking place within the mill. The formation of pools at the bottom of the rod pile is prevented and uniform results can always be obtained by this constant control. The interior is readily accessible for replacement of worn rods and lining.

"THE POWER SAVING afforded by the Marcy Rod Mill is a most important factor. Besides giving you a better long fibre pulp and improving the quality of your product, the saving in power will lower your cost per ton considerably. The saving in power alone will pay for the cost of a Marcy Rod Mill in a very short time.

"SUBSTANTIAL CONSTRUCTION is a salient feature of Marcy Rod Mills. Heavy cast shells are used instead of riveted boiler plate and these shells are properly protected by suitable liners.

"THE SLOPING HEADS of the Marcy Rod Mill insure the perfect alignment of the rods at all times and thus prevent unequal wear.

"ACCURATE MACHINING of all parts which are made to jigs and templates, insures the best possible operation, reduces wear, and lowers maintenance costs.

"THE LOW PULP LINE is assured by the open end discharge which prevents the by passing of stock and insures all of the pulp receiving its full portion of rod beating."

The MINE and SMELTER SUPPLY COMPANY

MARCY MILL DIVISION

*Licensee under the Marcy Rod Mill Patents*

DENVER, COLORADO
1422-17th Street

NEW YORK CITY
225 Broadway

*Manufactured in Canada by*
WILLIAM HAMILTON, LIMITED.
PETERBOROUGH, ONTARIO

# MASSCO

# Trade Mark Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade Mark Company, 900 F street, N. W., Washington, D. C., trademark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering.

NIAGARA FOLD—Ser. No. 274,476. Niagara Fold, Inc., Niagara Falls, N. Y. For carbon paper.

Representation of a fruit and vegetable hamper.—Ser. No. 279,802. Manatee Crate Company, Inc., Manatee, Fla. For fruit and vegetable hampers.

LOCKE—Ser. No. 283,406. Locke Regulator Company, Salem, Mass. For paper-drying regulators.

CB in a diamond-shaped figure.—Ser. No. 285,245. Charles Bruning Company, Inc., New York, N. Y. For blue-print papers and cloth, copying papers, etc., etc.

IVORY TISSUE, and picture of elephant.—Ser. No. 287,174. The Cellulo Company, Sandusky, Ohio. For toilet tissues.

ZETEX.—Ser. No. 288,630. Zetex Corporation, Tacoma, Wash. For paper commode-seat covers and paper towels.

WHITE CLOUD CREPE, and picture of a sail boat. Ser. No. 290,635. Walgreen Company, Chicago, Ill. For toilet paper.

WEDGE WEAVE.—Ser. No. 286,536. Z. & W. M. Crane, Inc., Dalton, Mass. For writing paper and envelopes, particularly papeteries.

HI-LOW.—Ser. No. 291,116. Container Corporation of America, Chicago, Ill. For composite paper on fiber board for packing purposes.

BAY WEST MOSINEE DUBLTOWLS, and picture of water.—Ser. No. 292,197. Bay West Paper Company, Green Bay, Wis. For paper towels.

BAY WEST, MOSINEE SINGLTOWLS, and water scene.—Ser. No. 292,198. Bay West Paper Company, Green Bay, Wis. For paper towels.

PLEE-ZING.—Ser. No. 292,372. George W. Simmons Corporation, St. Louis, Mo. For paper bags.

SWORD.—Ser. No. 292,373. George W. Simmons Corporation, St. Louis, Mo. For paper bags.

Picture of an eagle in flight.—Ser. No. 293,052. Keyes Fibre Company, Inc., Waterville, Me. For plates and dishes made from paper pulp or fiber.

AMERICAN FAMILY.—Ser. No. 293,053. Keyes Fibre Company, Inc., Waterville, Me. For plates and dishes of paper pulp or fiber.

ARBRO STRIPE.—Ser. No. 293,151. Orono Pulp and Paper Company, Bangor, Me. For wrapping paper and envelope paper.

SHOWAX.—Ser. No. 293,152. Package Paper Company, Holyoke, Mass. For transparent waxed paper.

AEROFOAM.—Ser. No. 293,440. Nekoosa-Edwards Paper Company, Port Edwards, Wis. For kraft paper.

COURIER.—Ser. No. 293,562. Strathmore Paper Company, Mittineague, Mass. For papeteries, bristol board, paper and cards for wedding, announcement and greeting purposes and mailing envelopes.

SPEED.—Ser. No. 293,566. American Sales Book Company, Ltd., Toronto, Ontario, and Niagara Falls, and Elmira, N. Y. For letter paper and record forms.

FARKA.—Ser. No. 293,621. Joseph A. Farkas doing business as Farkas & Co., Oklahoma City, Okla. For typewriter ribbons and carbon paper.

AQUATONE.—Ser. No. 293,635. Newark Paraffine and Parchment Paper Company, Newark, N. J. For transparent and paraffine paper.

DAY-TO-DAY BOND.—Ser. No. 293,647. Waterfalls Paper Mills, Mechanic Falls, Me., and New York, N. Y. For bond and writing paper.

DELITEX.—Ser. No. 293,670. S. H. Kress & Co., New York, N. Y. For toilet tissue.

DUROWAX.—Ser. No. 293,685. Package Paper Company, Holyoke, Mass. For transparent waxed paper.

## Boston Paper Trade Happenings

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., April 7, 1930.—John Carter & Co., Inc., have become sales agents in Boston and vicinity for the blottings manufactured by the Albemarle Paper Manufacturing Company, of Richmond, Va. April 11 and 14 there will be an exhibit of Albemarle products at the office of John Carter & Co., although the first date will be devoted more to a meeting of salesmen. There will be a demonstration of these lines. Franklin Dorset, advertising manager, and Blair B. Stringfellow, New England representative, will be on hand to talk with the printers who come to see the exhibition.

"Seven Generations," a story of Prattville and Chelsea, by Lieutenant-Colonel Walter Merriam Pratt, of the Pratt Paper Company, is on the press of the American Photographic Publishing Company and is expected to be published about June 1. The book will be issued in a limited edition of 1,000 copies. There are forty illustrations, portraits and numerous early views of Chelsea, some never before published. The book includes a story of Prattville, various references to the seven generations of Pratts, and numerous experiences and observations of the author. He has been a student of the history of Chelsea for many years, and comes of a long line of ancestors who took a prominent part in the civic, military and social life of the city.

Joseph Kinney, sales service man for the Arnold-Roberts Company, went to New York by airplane last week, remaining there two days on promotion work.

Albert E. Hahn, for 26 years with Carter Rice & Co. Corp., three years with Stone & Andrew, and a short time with John Carter & Co., Inc., has taken a position as sales manager for Stimpson & Co.

Alfred W. Morgan, formerly salesman in charge of the white paper at the office of Stimpson & Co., is now with George H. Sweetnam, Cambridge, Mass.

Reports from the hospital at Rutland, Mass., indicate that Howard Casey, well known salesman for the Hampshire Paper Company, is making a good recovery from a long illness.

Edwin Kleberg, of the Spaulding & Tewksbury Company, and Mrs. Kleberg are receiving congratulations on the birth of a son.

## L. C. Calkins Goes With Blake, Moffitt & Towne

SAN FRANCISCO, Cal., April 4, 1930.—Bringing with him 30 years of experience in the paper business L. C. Calkins has recently come to the Pacific Coast to be associated with the San Francisco headquarters of Blake, Moffitt & Towne.

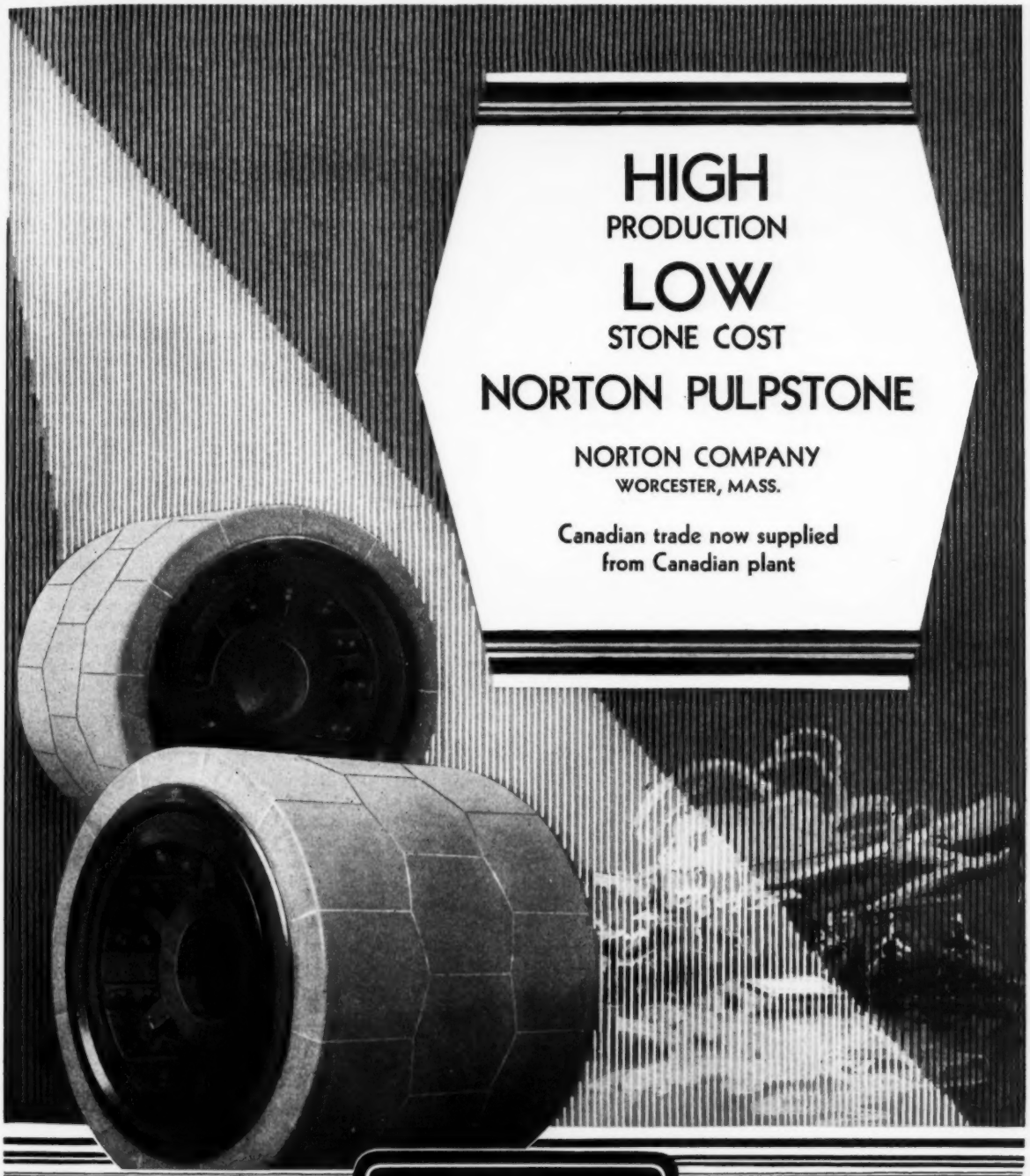
Mr. Calkins has, for the past two years, been connected with the McClellan Paper Company of Minneapolis. Here he served in the capacity of secretary and sales manager.

Previous to this, from 1911-1928, he was with the J. W. Butler Paper Company and the Butler Paper Corporations.

Starting out in the manufacturing end of the paper industry his experience has led him through the merchandising phases so that he brings to his new position a thorough familiarity with paper and paper products.

Mr. Calkins points out that while this is the first time he has made his home in the West, he is, however, no stranger to the Pacific Coast. Several years ago his work occasioned regular trips to the Coast enabling him to become well acquainted with the trade. "It is not only a pleasure to live in California," said Mr. Calkins, "but it is a source of gratification to me to know that I am to be connected with an organization known so favorably throughout the paper trade."

# NORTON




Grinding Wheels
Grinding Machines

NORTON
PULPSTONES

Refractories - Floor
and Stair Tiles

# New York Trade Jottings

The innumerable friends in the paper industry of Royal S. Kellogg, secretary of the News Print Service Bureau, extend their deepest sympathy to him in the loss of his youngest son, Gifford, last Sunday.

* * *

The Naylor Pipe Company, of Chicago, Ill., announces the removal of its New York office from 25 Church street to more convenient quarters at 3116 Chrysler Building, Lexington Avenue and Forty Second street, New York.

* * *

Parsons & Petit, selling agents of the Freeport Sulphur Company, with offices at 26 Beaver street, New York, are now distributing their annual sulphur statistical card, which contains a wealth of information about the sulphur industry.

* * *

Jesse H. Neal, general manager of the American Paper and Pulp Association, with headquarters at 18 East 41st street, New York, was in Washington, D. C., last Friday and Saturday, conferring with various government officials on matters pertaining to the paper industry.

* * *

Alfred S. Nalle became associated with the West Virginia Pulp and Paper Company, 230 Park Avenue, New York, on April 1, to assist in the distribution of their kraft papers from the Covington mill. Mr. Nalle was formerly the New England agent of the International Paper Company, Southern Division. Previous to this he handled the sales of the Hummel-Ross Fibre Corp., of Hopewell, Va.

* * *

The Texas Corporation has moved into its new quarters in the Chrysler Building, at 42nd street and Lexington Avenue. Beginning last Friday night all the office equipment of the corporation was moved from 17 Battery Place to the new quarters, which occupy fourteen floors. The lease for this space was the largest commercial office lease for floor space ever consummated in the Grand Central Zone, according to Brown, Wheelock, Harris, Vought & Co., renting agents of the Chrysler Building.

* * *

S. P. Weston, consulting news print engineer, discussed phases of the newspaper business of particular interest to paper salesmen, at the regular weekly meeting and luncheon of the New York Division of the Salesmen's Association of the Paper Industry, held last Monday at the Fraternities Club. Mr. Weston declared that the volume of newspaper advertising had decreased 10 per cent so far this year, compared to the corresponding period of 1929. He also mentioned that the sizes of the Sunday editions had been steadily declining during the last three or four years and predicted a decrease in newspaper advertising volume and news print consumption in 1930.

## Inso Board Foreign Shipment Increase

Shipments of Inso Board to Holland continue to increase in volume and frequency. Full cars are now being shipped with regularity. One left the plant of the Stewart Inso Board Company, in St. Joseph, Mo., last week. Several cars are being loaded, at the present time, for delivery in Shanghai, China. Shipments to England and many other European countries also are scheduled in the immediate future.

The export business of the Stewart Inso Board Company, apparently is showing a healthful growth, like its domestic business.

The first shipment of Inso Board to Holland was three years ago, shortly after the Stewart Company went into its new $1,000,000 mill in St. Joseph.

The first shipment has been in use in the Netherlands through two winters and three summers and it has been thoroughly tested.

## Kimberly-Clark Contract Awarded

NIAGARA FALLS, N. Y., April 7, 1930.—Announcement is made this morning by Wright & Kremers, Inc., of their receipt of a contract from the Kimberly-Clark Corporation, Packard road, for an extension to their Mill No. 2 in this city. The project has been under consideration for the past few weeks and the Kimberly-Clark Corporation has expedited the approvals of their own organization in order to get the work under way. The additional space is needed and this contract will, to some extent, relieve the present unemployment in the building trades. Excellent cooperation has been experienced with the local Building Inspection Department of Niagara Falls and from the Industrial Board of the State of New York.

The contractors have been urged to do the work with all possible speed and to build up the erection forces as fast as conditions will permit. The contract calls for completion of the building on September 1.

The structure consists of a five-story, reinforced concrete, factory extension, with brick exterior walls. The entire contract, with the exception of mechanical equipment, is in the hands of Wright & Kremers, Inc.

## Andrew Gasparinetti Visits Boston

Boston, Mass., April 7, 1930.—Andrew Gasparinetti, of the Miliani Mill of Fabriano, Italy, a paper mill that has been in continuous operation since the 15th Century, visited Boston last week. Mr. Gasparinetti and Herbert Farrier, of the Japan Paper Company, visited many of the Boston printers and publishers who are using hand made papers. This gave Mr. Gasparinetti an opportunity to see some of the most outstanding typographical books of the year, printed on Italian papers sold by the Japan Paper Company. He was especially pleased to see the great accomplishments of the New England printers and publishers whose work is well known throughout Europe.

Mr. Gasparinetti, because of his intimate knowledge of hand made paper, is extremely well qualified to advise with the entire organization of the Japan Paper Company on any unusual problems which may be presented in connection with the using of Italian hand made paper. He has returned to New York and will be at the New York office of the Japan Paper Company for some time.

## Little Change in Demand in Indianapolis

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., April 7, 1930.—Little change is seen in the paper demand here, but the volume is not as great as it should be at this season of the year. This is particularly noticeable in the slack demand for news print in spite of the opening of the spring season and the approach of Easter. Advertising generally is light, with the papers in the larger cities apparently suffering more in proportion than those in the rural communities.

Demand for the better grades of papers for advertising specialties has increased during the last week or two, but the volume is just about holding its own with last year.

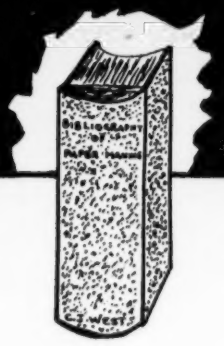
Paper stock men are complaining bitterly about prices and most of them are holding their stocks in local warehouses waiting for some improvement. They are buying cheaply, however, and should make some money if prices improve and their storage spaces can accommodate the stocks until that time.

A rather steady demand continues to come from manufacturers using cellophane and other similar papers for packing. Demand for waxed papers from the bakery trade continues good, the cause being more and more bakers going in for this sort of wrapping.

## Bernard Arthur Judd Dead

The Petrequin Paper Company, of Cleveland, Ohio, announces the death of its secretary, Bernard Arthur Judd.

# Bibliography of Paper Making



**Compiled by Clarence J. West**

*Chairman, Committee on Abstracts and Bibliography, Technical Association of the Pulp and Paper Industry*
*Director, Research Information Service, National Research Council*
*Associate Editor, International Critical Tables*

**The most recent compilation of Pulp and Paper Making published covering a period of twenty-eight years—1900-1928. In this work has been incorporated interesting discoveries, ways of paper making, uses of chemicals, mechanical parts together with the important abstracts of TAPPI. After exhaustive studies through many lists, abstracts and papers, the author, Mr. West, has collated all this very important information and data in this**

**BIBLIOGRAPHY OF PULP AND PAPER MAKING**

**a book of almost one thousand pages bound in an attractive linen board cover.**

**Contains complete index and table of contents and cross index for reference purposes.**

**A Partial List of the Contents**

Adhesives, Alkaline Processes, Analytical, Aninga fiber, Asbestos boards, Asparagus fiber, Bagasse, Bamboo, Baobab, Barkers and Barking, Beaters and Beating, Belts, Bleaching, Blotting Paper, Boards, Broom fiber, Caroa fiber, Cellulose, Chemicals, Cork wood, Corn stalks, Corrosion, Cottonseed hulls, Deinking, Drying, Durability, Dyes and dyeing, Esparto grass, Eucalyptus, Explosion process, Felts, Fillers, Filter paper, Flax, Froth, Grasses, Heat problems, Hedychium coronarium, Insulating papers, Lignin, Logging, Lubrication, Marram grass, Mechanical processes, Manila hemp fiber, Nitric acid, Papyrus.

**Published for the Technical Association of the Pulp and Paper Industry by the**

**PRICE $10**
***DELIVERED***

***Complete List Sent on Request***

**LOCKWOOD TRADE JOURNAL CO., INC.**
**10 East 39th St., New York, N. Y.**

# CONSTRUCTION NEWS

*A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills*

## Construction News

**Ashland, Wis.**—The Marathon Paper Mills Company, Rothschild, Wis., has plans maturing for the construction of a new addition to its mill at Ashland. It will be one-story, used for increased capacity. Estimated cost has not been announced.

**Baltimore, Md.**—The Hinde & Dauch Paper Company, Sandusky, Ohio, manufacturer of corrugated paper board products, containers, etc., is said to have concluded negotiations for the purchase of a tract of about 5 acres of land at Baltimore, for proposed new mill at that place, recently announced in these columns. Plans for initial unit will be placed under way immediately, and it is understood that ground will be broken before the close of the month. The plant will be used primarily for the production of corrugated shipping containers and is reported to cost more than $80,000, with machinery, instead of a smaller amount previously noted.

**New York, N. Y.**—The Fine Fibre Box Corporation, care of Louis Fine, 647 Montgomery street, Brooklyn, N. Y., recently organized by Mr. Fine and associates, with capital of 200 shares of stock, no par value, is said to be arranging the early operation of a local plant for the manufacture of fiber and paper boxes and containers. Samuel Small, address noted, is also interested in new company.

**Middletown, Ohio**—The Crystal Tissue Company, Middletown, has engaged Schenck & Williams, Third National Bank Building, Dayton, Ohio, architects, to prepare plans for a new addition to its mill, and for which preliminary designs will be placed in progress at once. Details of size and type of structure will soon be determined. It is understood that the company will make an investment of close to $100,000 in building and equipment for the expansion.

**Wellsburg, W. Va.**—Arkell & Smith, Inc., Canajoharie, N. Y., manufacturer of paper bags and sacks, etc., has concluded negotiations for the purchase of property at Wellsburg, 100x140 feet, as site for a new paper mill, to be used primarily for the production of heavy bags for flour, cement and similar service. Plans will be placed under way at once for initial unit to occupy the entire site, with equipment to give employment to more than 250 operatives. Entire project is reported to cost upward of $100,000, with machinery. H. H. Arkell is president.

**Park Falls, Wis.**—The Flambeau Paper Company, 461 Jefferson street, Milwaukee, has approved plans for the construction of a power plant on the Flambeau River at Cowley Rapids, to be used for service at its mill at Park Falls. Work will include a power dam of concrete type. Entire project is reported to cost more than $175,000, with equipment. Orbison & Orbison, 110 West College avenue, Appleton, Wis., are engineers.

**Newark, N. J.**—Lowenstein Brothers, 71-87 Boyd street, dealers in paper waste, rag materials for paper manufacture, etc., plan rebuilding of portion of building destroyed by fire, April 3, with loss reported at close to $10,000.

**Philadelphia, Pa.**—The Champion Container Company, Inc., Water and Morris streets, Philadelphia, has leased a floor in the new building recently completed at Third street and Somerset avenue, 101x248 feet, and will occupy for expansion.

**Houston, Tex.**—The Houston Paper Company has completed a new plant unit for storage and distributing service, representing an investment of close to $150,000, and will develop for maximum operations. The company will occupy the structure at once.

**New York, N. Y.**—The Bonime-Artcraft Corporation, care of Alvin Sander, 1963 Benedict avenue, Bronx, New York, recently organized by Mr. Sander and associates, with capital of 200 shares of stock, no par value, is said to be arranging the early operation of a local plant for the manufacture of paper boxes and containers of various kinds. It is understood that extensive production will be carried out.

**Menasha, Wis.**—The Allen Waste Paper Company, Menasha, recently organized by Fred M. Rosenthal, Menasha, and associates, has approved plans for the construction of a one-story building on Appleton street, to be used for storage and distributing service, and expects to occupy at an early date. It is reported to cost about $20,000.

**Holyoke, Mass.**—The General Waxed Paper Company, Holyoke, has been organized with a capital of $25,000, by C. A. Renner, Holyoke, and associates, to establish and operate a local mill for the manufacture of waxed paper and other processed stocks. It is proposed to begin operations at an early date. Mr. Renner will be one of the heads of the new organization. Others interested are A. W. Renner and T. A. O'Shea, both of Thompsonville, Conn. The new company is reported to be considering property at Enfield, Conn., for plant, and may locate at that place rather than site first noted.

**Menasha, Wis.**—The Edgewater Paper Company, Garfield avenue, is said to have plans maturing for construction of new local mill, one-story, brick. It is proposed to begin work at an early date. Estimated cost has not been announced.

**Salem, Ore.**—J. F. Galbraith, Salem, said to be connected with the Miles Linen Company, with local mill at 2100 Fairgrounds road, is at the head of a project to construct and operate a local plant for the manufacture of paper board products. It is understood that a fund is being subscribed for the project, which will cost close to $40,000, with equipment.

**Boston, Mass.**—The F. S. Webster Company, 340 Congress street, manufacturer of carbon paper, typewriter supplies, etc., is said to be arranging an immediate call for bids for proposed new plant at Wadsworth and Hatwood streets, Cambridge, recently reported in these columns. New unit will be five-story, and is reported to cost over $80,000, with equipment. Densmore, LeClear & Robbins, 31 St. James avenue, Boston, are architects.

**Pittsburgh, Pa.**—The F. & B. Paper Company, 627 Webster avenue, has concluded negotiations for lease of building at 622 Second avenue, and will remodel and improve for early occupancy for storage and distributing service. It is expected to take possession on May 1.

**Portland, Ore.**—The Columbia Paper Products Company, Portland, has arranged for a merger with the Northwest Tag and Label Company, Seattle, Wash., and will operate under the first

noted name. The factory at Seattle will be removed at once to the plant of the Columbia company at Oregon City, Ore., where production will be concentrated in the future.

**Hull, Que.**—The E. B. Eddy Company, Ltd., Hull, has plans maturing for the construction of proposed new addition to paper mill on Bridge street, for which M. Pratt, Montreal, Que., is architect. The new unit is reported to cost over $2,000,000, with machinery.

### New Companies, Etc.

**New York, N. Y.**—The Macolite Paper Corporation has been incorporated with a capital of $10,000, to manufacture and deal in paper products. The incorporators are William Burke and H. E. Kalton. The company will be represented by Joseph D. Lee, 19 West Forty-fourth street, New York, attorney.

**Providence, R. I.**—The National Paper Products Sales Company, a Nevada corporation, has filed notice of company organization to operate in Rhode Island, and will be represented by John E. Canning, 10 Weybosset street, Providence, attorney.

**Ontonagon, Mich.**—The Northern Paper Mills, Inc., has filed notice of increase in capital from 75,000 to 85,000 shares of stock, no par value, the preferred stock remaining at $130,000 first preferred, and $500,000, second preferred.

**New York, N. Y.**—The Brighton Folding Box Company, 529 East Fifth street, has filed notice of increase in capital from a nominal amount of $5,000 to $25,000, for expansion.

**New York, N. Y.**—The Societie Des Cartons Francais, Inc., has been incorporated with a capital of $10,000, to manufacture paper boxes, cartons and containers. The incorporators are Arthur G. Weinberger and Saul Goldstein, 299 Broadway, New York. The last noted is representative.

**Detroit, Mich.**—The Michigan Wall Paper Company, 38 East Larned street, has been incorporated with a capital of 2,000 shares of stock, no par value, to deal in wall papers, etc. The incorporators are R. A. Lowther, Detroit; and Harry J. Lowther, Grosse Point, Mich. Last noted is representative.

**Newark, Del.**—The Fibre Company of Delaware, Inc., has filed notice of change of name to the Delaware Hard Fibre Company.

**Wilmington, Del.**—The Southern Kraft Corporation, care of the United States Corporation Company, Dover, Del., has been chartered under state laws with capital of 100,000 shares of stock, no par value, to manufacture kraft paper stocks. The incorporators are Malcolm Fooshee and Frederick Sheffield.

## C. A. Terry Joins New York Power

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., April 5, 1930.—Announcement is made of the resignation of C. A. Terry as superintendent of the Sherman Island plant of the International Paper Company to take a similar position with the New York Power and Light Corporation. In his new position he will have direct supervision over the company's eighteen hydro-electric power stations, including those at Cohoes and Spiers Falls.

He had been connected with the local paper mill since 1923 and previous to that time was foreman of electrical construction for the Pacific Gas and Electric Company at San Francisco. For a number of years he was also engaged in power plant construction along the Panama Canal. He is a member of the American Institute of Electrical Engineers.

## H. T. Blair Goes With Brown-Bridge Mills

TROY, Ohio, April 7, 1930.—H. T. Blair, of Middletown, Ohio, has become a member of the sales force of the Brown Bridge Mills, Inc.

The company's sales are running well ahead of last year and the outlook is very good.

The company has just made and put into operation a large machine of special design to improve the quality as well as the quantity of its flat gummed paper department.

## A MODERN MILL IN MEXICO

*(Continued from page 42)*

meters, oil meters, pressure and temperature registering apparatus, gas analysis apparatus, and indicating pyrometers. These furnish very complete records of the performance of not only the boilers, but also of the steam consumption for drying used by each paper machine. Figure 18 shows an interior view of the Boiler Plant.

There is also a well-furnished mechanical workshop, Fig. 19, with iron and brass foundries, smith shop, tin shop, and arc welding shop. The workshop is also equipped with special machines for paper mill use, such as roll buffing machines and an hydraulic press for making compressed paper rolls for super-calenders. A well-equipped carpenter shop is operated in connection with the mechanical department to maintain a constant supply of spare parts.

## Year Book for Wood Industries

The annual number of the *Swedish Timber and Wood Pulp Journal*, just issued, is intended to be a reference book for the timber, wood pulp, and paper industries in the Scandinavian countries and contains reviews from the different markets during 1929, together with full statistics for that year.

Features of this special number include an illustrated article on the Swedish Pulp Company, the Kreuger Combine and Its Mills, Russian Competition in the Timber Market, Standardization of Timber Measure, the Timber Port of London, and many other articles of interest.

This special number consists of 216 pages, with text in both Swedish and English. The price of the number is 84 cents, excluding postage, and it may be ordered from A. B. Svensk Travaru-Tidnings Bokavdelning, Kungsgatan 17, Stockholm, Sweden.

## J. G. Worker Heads Hoist Manufacturers

The Electric Hoist Manufacturer's Association, meeting at the William Penn Hotel, Pittsburgh, on March 20th, elected Joseph G. Worker, American Engineering Company, Philadelphia, as Chairman of the Association and Mr. D. S. Brisbin, Chisholm-Moore Hoist Corporation, Vice Chairman.

Members of the Association reported that hoist sales for 1929 were larger than in any previous year.

The opinion was expressed that use of electric hoists as production tools in some of the larger factories has greatly broadened the hoist market. It was also reported that electric hoisting is being adopted as standard practice in a number of industries, which have not heretofore been extensive users of hoists.

## Rowe C. Wales' New Post

[FROM OUR REGULAR CORRESPONDENT]

CORINTH, N. Y., April 5, 1930.—Rowe C. Wales has been appointed superintendent of the sulphite department at the Hudson River Mill of the International Paper Company and has already assumed his new duties. He has been an employee of the company for many years and was previously connected with the Berlin, N. H., plant. In his new position he succeeds the late Julian Miller, who died suddenly in the yarn mills a few days ago while being assisted to the medical department. Mr. Wales, who is a native of Bellows Falls, Vt., plans to establish a home for his family here.

## James MacRoberts Dead

[FROM OUR REGULAR CORRESPONDENT]

HUDSON FALLS, N. Y., April 5, 1930.—Funeral services for James Mac Roberts, for many years master mechanic of the Union Bag and Paper Company, were held here this week. He died after a brief illness. The obsequies were attended by many of his friends in the paper industry who are mourning his passing. His wife, two daughters and three sisters are the survivors.

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Reginald Trautschold, M. E.,
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## SWEDISH PULP AND PAPER RECORD

Swedish pulp and paper production reached record figures during the past year, according to a report from Consul General John Ball Osborne, Stockholm, to the Department of Commerce,

While in making comparisons with 1928 it should be remembered that exports during the latter year were curtailed to some extent by the labor troubles at the beginning of the year, nevertheless the 1929 output is considerably above that of 1927, the previous record year. At the same time producers were able to dispose of practically the entire 1929 output, and by the middle of December had orders on their books to cover nearly three-fourths of the calculated output of sulphite for 1930 and between one-half and three-fifths of the sulphate production.

The paper market was somewhat dull at the end of the year, due partly to seasonal dullness and partly to the situation in the North American market.

A new record for the Swedish chemical pulp industry, both in regard to production and exports was established in 1929. With few exceptions the different mills were able to continue in operation throughout the year. The output exceeded that for 1927, the previous record year, by 35,000 metric tons (metric ton equals 2,205 pounds) tons of bleached sulphite, 55,000 tons of unbleached sulphite and about 197,000 tons of sulphate. This represents increases of 42½ per cent, 26⅛ per cent, and 53¾ per cent respectively over the preceding year's output. At the same time exports of bleached sulphite pulp show an increase of 38 per cent, unbleached sulphite 32 per cent, and sulphate pulp 53 per cent compared with 1928.

Swedish producers were able to dispose of practically their entire output of chemical pulps during 1929, while advance sales of the 1930 production at the turn of the year were reported as high as 70 per cent for the sulphite pulp and 55 to 60 per cent for the sulphate.

The prospects for the wrapping paper manufacturers were favorable at the opening of 1929. The mills were well occupied and prices firm. In the late summer and autumn months, however, the number of orders suddenly declined and it was only through the cooperation of the sulphite paper mills that a corresponding decline in prices was avoided. In the kraft paper branch of the industry, on the other hand, prices underwent a decline amounting to $10 per ton in the course of the year.

The greaseproof market on the whole was comparatively satisfactory, a situation which can also be ascribed to the cooperation exisiting in the last few years between the leading producing countries. Prices held firm, and the rate of operation throughout the year was satisfactory.

In the news print market the situation was naturally influenced by conditions in the United States, which is the leading consumer of this class of paper. Prices varied from about $54.80 up to $58.44, f.o.b. Swedish export harbor. Out-going shipments during 1929 reached a total of 197,533 metric tons, an increase of 24 per cent over 1928.

## COOPERATION IN SAFETY WORK

When the founders of the National Safety Council inserted the word "cooperate" in its constitution back in 1913 they little dreamed of the important part this term would play in the development of the organization. Today the expression stands out in bold letters as a most significant part of the very fabric of the institution and its remarkable growth is due in large measure to its cooperative efforts during the past 18 years.

Cooperation is and always has been a basic fundamental of safety. In a sense it is the very soul of organized safety for without it there can be no definite safety progress. It played a modest but important part in pioneer days when the executive offices were in charge of two men and the office force consisted of two stenographers. It plays a much bigger part today with an executive staff of 116 members who have recently moved into greatly enlarged quarters in the Civic Opera Building, 20 North Wacker Drive, Chicago.

This cooperation now finds expression in many forms and with perhaps half a hundred organizations whose activities are closely allied with safety administration. With many of the organizations there is a permanent cooperative tie-up which, while working efficiently and obtaining direct results, does not in any way tend to curb the activities or restrict the entities on either side. With other organizations the "get together" comes as occasion demands. There are no strings tied in any case. It is a voluntary cooperation helpfully and willingly given on both sides.

Many of the organizations have their own executives acting on various committees in the National Safety Council while many of the Council officials hold places on important committees of such institutions.

Outstanding among these groups might be mentioned the American Paper and Pulp Association; the National Conference on Street and Highway Safety; the United States Census Bureau; the Industrial Accident Commission of many states; the American Engineering Council; American Standards Association; The American Gas Association; National Electric Light Association; National Automobile Chamber of Commerce; The Red Cross; the Boy and Girl Scout Organizations; American Petroleum Institute; Portland Cement Association; American Automobile Associations and many motor clubs; American Railway Association; National Association of Taxicab Owners; National

Fire Protection Association; the U. S. Chamber of Commerce and local Chambers; Rubber Association of America; and a great many other similar institutions.

The Council maintains a close contact with the insurance field. The National Bureau of Casualty and Surety Underwriters not only works with the Council in closest cooperation but also makes possible the functioning of the Education Division through an annual appropriation of $35,000 started six years ago. Over $200,000 has therefore been invested by the Bureau through the Council in School Safety activities.

So also might be mentioned many other leading insurance organizations which are ever ready to lend the benefit of their experience to the Council's programs. It is interesting to note that many individuals associated with stock and mutual casualty companies and life insurance companies give much of their time to Council activities.

The organizations mentioned here are only a small percentage of those with which the Council has cooperated during recent years. However, the ones mentioned are those in which there is a rather definite working understanding which proves to be mutually helpful. All in all the Council's work has developed into a pretty big field of cooperative effort and the success is pretty strong endorsement of the timeworn adage that "team work pays."

## Offer 2,000,000 Cords of Pulpwood

Two million cords of pulpwood in the Rio Grande and San Juan National Forests of southwestern Colorado are offered for sale to the highest bidder by the Forest Service, U. S. Department of Agriculture. This offer is made in response to an application from a responsible paper manufacturer. If this timber is sold, Colorado will come into the field for the first time as a large-scale producer of pulp timber, says the Forest Service.

Operations under the contracts offered would increase the total annual cut on the National Forests of Colorado by approximately fifty per cent. The National Forests in the State would permit a 400 per cent increase in the cut without removing more timber than the natural growth would replace. The operation has been planned so that it can continue indefinitely covering in rotation a number of tracts large enough so that after the cutting of the last tract the firs will be ready with a second crop.

Two units make up the "chance" which the Forest Service is now advertising one on the south fork of the Rio Grande with an estimated total of 1,025,000 cords of Engelmann and blue spruce and 215,000 cords of white and alpine fir, and the other on the upper Piedra River with 800,000 cords of spruce and true fir. Each unit includes sawtimber, consisting of Douglas fir, western yellow pine, limber pine and bristle cone pine.

## Warren Parchment Co. Settlement

[FROM OUR REGULAR CORRESPONDENT]

DEXTER, N. Y., April 5, 1930.—Judge Frederick H. Bryant has signed an order approving the settlement of the Warren Parchment Company with its creditors which has been filed in the United States District Court. Under the agreement the company will pay twenty-five cents on the dollar to creditors with claims for $71,083. Other claims to the amount of $126,983 were not approved. The order was signed on motion by Attorney Francis E. Cullen, representing the bankrupt firm.

Claims approved included the Dexter Sulphite Company, $7,669; Marcy-Buck Company, $2,304; Northern New York Trust Company, $35,000. Claims not approved included Harmon Paper Company, $61,236; John J. Warren, $41,232; Jefferson County National Bank, $15,000.

## More Litigation Over Denver Paper Concern

DENVER, Col., April 4. 1930.—While many were of the opinion that the sale by the receiver of the Colorado Pulp and Paper Company had settled all litigation, some of it going for more than two years, it seems that the end of the squabble is not yet as is evidenced by a petition filed by William Rossi, one of more than 150 creditors against the company. The document was filed in the state supreme court, March 28 as a "friend of the court" by his attorney Charles A. Friend.

It is entered in the suit of Charles B. Myers against Max Bronstine, J. Rude, George W. Beck, receiver; the International Trust Company, Harry C. Davis, Joseph Buchhalter, Aaron Bronstein and Stanley T. Wallbank.

Rossi, saying he had claims of $50,000 against the company originally, refers in his brief to the settlement of the company's affairs as "looting of the creditors" and the receiver's sale as a "massacre of the creditors' rights."

He alleges creditors were not represented in the stipulation by which the company property was sold to Rude and Bronstine for $228,000 of bonds.

Bankruptcy action against the company was dismissed, he says, for these alleged considerations: "Ten thousand dollars to be paid to alleged bondholders who had no security and no claim on rents, issues and profits. These bondholders were revealed as Harry Silverstein, $1,000; Charles Ginsberg, attorney for the receiver, $5,000; Buchalter, $2,000, and Davis, $2,000."

Rossi charged that three bondholders and others pretended to have the right "to continue their invalidly-appointed receiver under their stipulation and then have him sell to them all the company property—not to satisfy any security—no—simply notes." The bonds they professed to own, he alleges, were simply unsecured notes.

Rossi charged that the case has amassed so much record that it cannot be taken to court, except at great expense.

"It has dissipated nearly $31,000 in receiver's fees and attorneys' fees alone, which, with the 10,000 unlawfully given bondholders, was more than sufficient, with payments made, to pay all unsecured creditors and leave the bondholders with the sole and only security they ever bargained for—the real estate—intact," the brief asserts.

"It has given all the assets of the company to the bondholders, without security, plus $24 in a deficiency judgment.

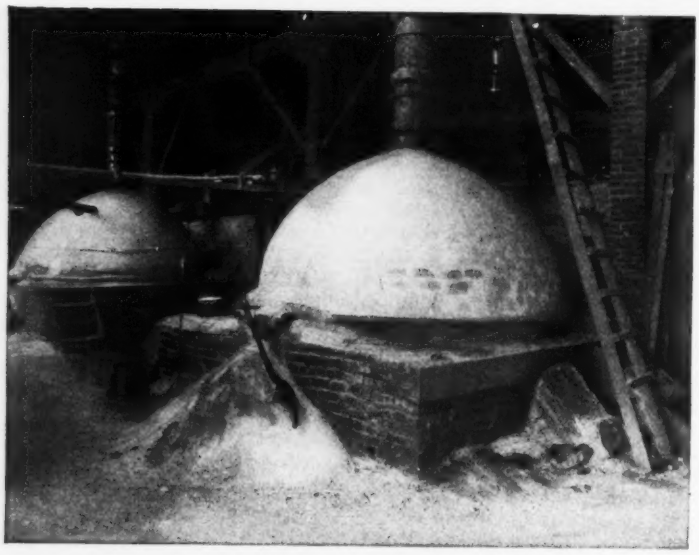
Rossi terms the district court's removal of the $300,000 upset price as "the final link in the chain forged by bondholders and 'parties' to get the property for bonds, without foreclosure, and without cash, which property had at all times, for credit purposes, been held out by them at a value of $600,000."

## Empire State Reforestation Plans

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., April 5, 1930.—Acquisition of lands outside the forest preserve for purposes of reforestation has begun to assume considerable proportions, judging by the titles coming before the attorney-general's office for approval. Hamilton Ward, attorney-general, believes that passing upon titles of this character will soon become one of the major functions of the title bureau of the department of law. The Conservation Department has already listed sixty-four of the contracts covering 16,868 acres at a price of $106,378 to be passed upon, the land acquired being in Otsego, Schoharie, Madison, Montgomery, Oswego and Chenango counties.

The reforestation program adopted recently by the state authorizes the acquirement of abandoned lands in counties outside the forest preserve with the object in view of reviving the state's timber resources. In time, it is expected that the state will be more than reimbursed by the income from wood products within these areas. In addition there will be the protection of sources of water supply, protection to wild life, and the restoration of scenic beauty. Lands at present neglected are to be acquired in all parts of the state.



*Two of the Muriatic Acid Furnaces*
ELIZABETH PLANT

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Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

# New Paper Machine of the Cellulo Co.

By L. E. Milkey[1]

Like in other major industries, paper making as a science is fast developing a trend toward more specialization. Paper making machines and allied equipment are now designed and built to make some specific type of paper which can be made most economically and satisfactorily on that particular machine and equipment. In other words, design is being more closely adapted to a single type of paper. In the good old days a mill could and usually did make anything from tissue to board on the same paper making equipment but now economic pressure has shown that there is usually one best method, even allowing for other fairly good methods, of making each type of paper.

Working along this line of thought, the Cellulo Company of Sandusky, Ohio, operating a small mill for the production of absorbent papers, has developed a new and specialized design of paper making machine for the manufacture of that type of paper which includes towel, toilet, napkin and facial tissues as well as cellulose wadding. The Cellulo Company has been in operation about nine years and during that time and under the direction of its president, L. E. Milkey, much experimental and development work has been carried on not only along the lines of its own commercial products, but for some widely known outside organizations as well. This company is at present operating a 70-inch machine of this new type and those who have seen it in operation are impressed with its possibilities. A general description of the machine is given.

The making of light weight papers, especially from free and unsized stocks and at speeds necessary for production methods, calls for automatic handling and conveying of the paper especially through the wet end where such papers while still wet have very little inherent strength. In the past the particular problem has been to get the newly formed sheet off the forming wire by some certain method and then pass it through the press or presses to the driers at which point the paper itself has become sufficiently dry and therefore strong, to be quite self sustaining.

[1] President of the Cellulo Company, Sandusky, Ohio.

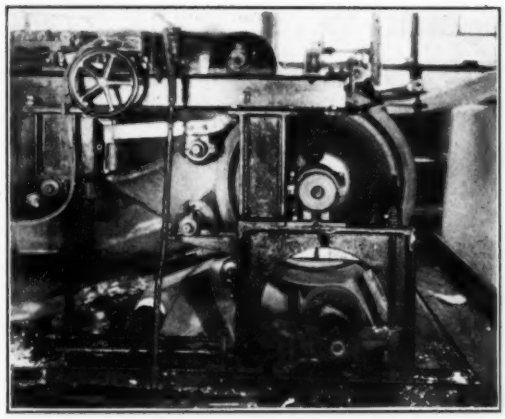


FIG. 2
Steam heated press roll to which sheet is transferred from the wire.

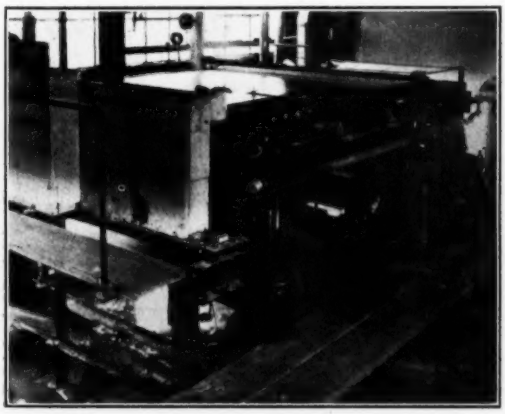


FIG. 1
Head box and fourdrinier section.

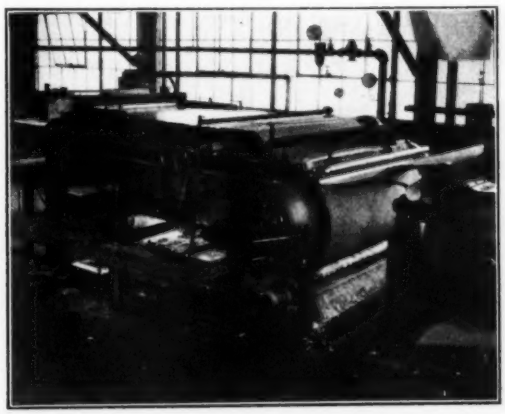


FIG. 3
General arrangement of wire, press roll and driers.

Old type cylinder machines, of course, offered somewhat of a solution but the poorer formation and strength of the sheet and limited operating speeds of the machine have so far been insurmountable limitations. Other attempts to adapt the more desirable fourdrinier type of machine for the making of these papers resulted in adaptations such as the well known Harper fourdrinier and attachments like the Edwards, the Tomkins-Hawley-Fuller, and others. In all of these, however, some kind of a pick-up felt with its familiar operating difficulties was used to pick the wet sheet off the wire and convey it to and through the presses where some other and more suitable water removing felt had to be used since a pick-up felt is by nature wholly unsuited for water removal.

### Transfer of Paper to Press Roll

In the Cellulo Company's new machine[2] the fourdrinier wire on which the paper is formed by any of the conventional methods and at any speed, is brought into contact with the bare surface of a top press roll and direct automatic transfer of the wet paper from the forming wire to the press roll surface is made at that point. The accompanying photographs of the machine in operation show the manner in which this is accomplished. The wire itself is brought against or trained around a part of the periphery of the large diameter top press roll. A soft rubber press roll, inside the wire and pressing the wet sheet firmly against the top press roll, insures the transfer of the wet paper to the press roll surface since the latter under these conditions has a greater affinity for the wet sheet than has the wire on which it was formed and subjected to vacuum either by flat boxes or a suction roll.

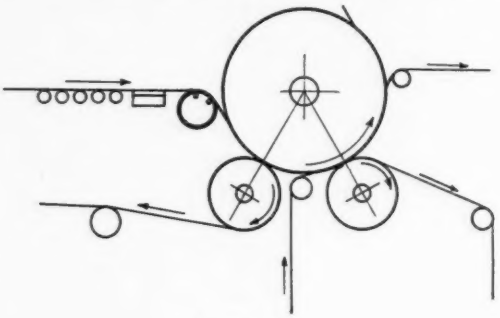


FIG. 5

On the present machine the top press roll is also steam heated. The paper after thus being automatically transferred to the top press roll, follows the latter and passes on through the nip of the

[2] Patented Nov. 4, 1924, and other patents pending.

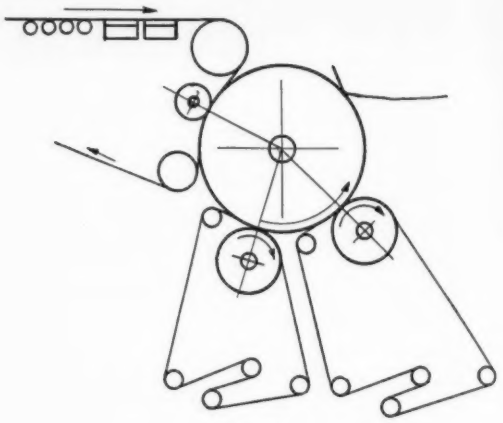


FIG. 6

felt press roll which is brought up by pressure from underneath, the large diameter top press roll being in this case fixed and the bottom roll adjustable to it. One press felt is all that is necessary on the present production of absorbent tissues although one or more additional bottom press rolls each with its own felt, can be used pressing against the same top steam heated press roll.

### Crepe or Smooth Paper Obtainable

The paper after passing through the press is permitted to follow its natural tendency to cling to the surface of the top roll and at

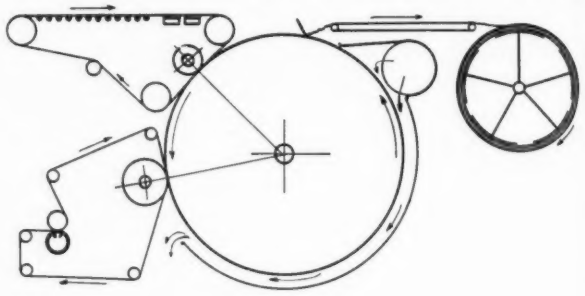


FIG. 7

a point above is loosened by a doctor blade which in this case also produces the desired amount of crepe in the paper. Or the sheet may be stripped off and run around a customary draw roll if no crepe is desired. At this point an all sulphite free stock sheet of

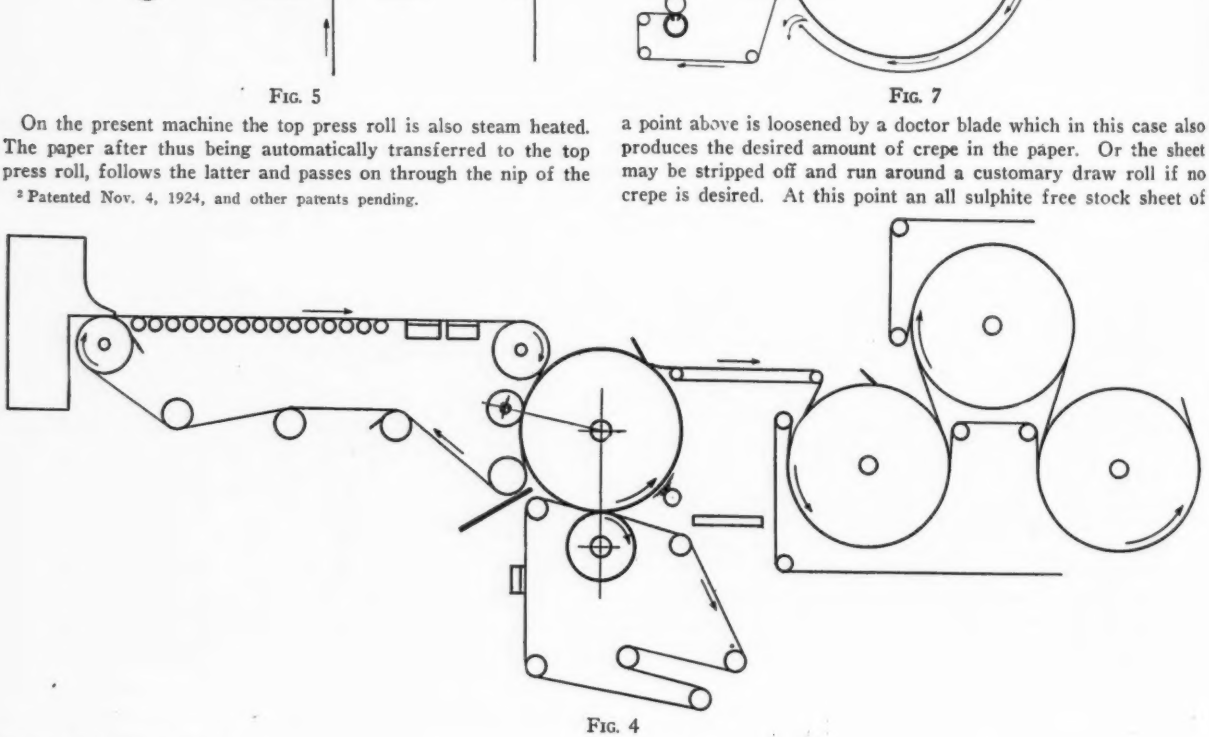


FIG. 4

about 14 pounds weight is delivered more than 40 per cent dry which is dry enough for it to be then self supporting in its further travel to and through the driers. Therefore from the flow box through the presses and to the driers, the pulp web or wet sheet is continuously and automatically supported and cannot break, and to accomplish this no dependence is placed on felts of any kind. The whole wet end is short and very compact.

Heating the relatively large diameter top press roll offers several advantages. The wet sheet by its longer contact is heated before going through the presses, thereby obtaining all the advantages of preheating, now so well recognized. In addition there is actual vaporization taking place during the travel of the sheet from the pressing action to the crepeing doctor and this is assisted by a blast of hot air directed against it. In effect therefore the top press roll also begins to function in a drier capacity.

Since in this arrangement the press felt or felts serve but one purpose, that of water removal, it is of a type best suited to that single but all important purpose of water removal. Its care, handling, and treatment are therefore simplified and if two bottom press rolls and felts are installed they may be used alternately, one being used while the other felt is being replaced or washed, all without interrupting the production of the machine. Another innovation on this present machine is the use of special part wool and part cotton felts[3] made to the designer's specifications by the Albany Felt Company. Numerous tests have shown greater water removal with such felts on a machine of this type, and there is promise of still further improvement with even greater departure from orthodox felt construction. Further along this line some progress has been made experimentally in the elimination of conventional felts altogether by substituting capillary methods of water removal on these light weight free sheets while they are on the surface of the press roll.

Fig. 4 shows the layout of the present machine as it is commercially operated on light weight absorbent papers, and creped tissues. Fig. 5 is a proposed variation in which the bottom press rolls are fixed in position and the top press roll, which makes the paper transfer, is adjustable to them. One or more additional press rolls with or without felts can be used depending upon the type of paper made. Fig. 6 shows two presses and felts working against the same top press roll to which the paper is transferred. These press rolls and felts may be used together, alternately, or separately as conditions warrant. Fig. 7 shows an adaptation of the machine as proposed for making cellulose wadding. Here the top press roll is larger and heated to a higher temperature and all the drying as well as the pressing is done on the one roll—the same roll on to which the wet paper or web is transferred directly from the forming wire. A jacket or hood for hot air circulation around the hot press roll is used.

[3] Patents pending.

## Paper Technologists Club Meets

The third annual interstate meeting of the Paper Technologists Club will be held on Friday and Saturday, May 23 and 24, 1930, at the Park American Hotel in Kalamazoo, Mich. Registration will begin at 10 A. M. Eastern standard time, on May 23. There will be no registration fee.

There will be six speakers on technical subjects. A nationally known speaker will be on the banquet program which will be held on the evening of May 23.

The question box initiated last year at this meeting proved of such interest that another one will be conducted at this meeting and at the time of registration any one attending can present subjects for discussion.

An innovation this year will be the preprinting of the papers to be read at all meetings. This is expected to improve the discussion at the meetings. The local Cost Association section will hold meetings at the same time as the Paper Technologists Club. E. Frank Whittington, of the Sutherland Paper Company, Kalamazoo, Mich., is general chairman of the meeting.

## TAPPI Notes

Karl E. Luger, formerly sales engineer for the Ludlum Steel Company, New York, is now connected with the American Sheet and Tin Plate Company, Pittsburgh, Pa.

C. H. Nystrom is now with the Northern Paper Mills, Green Bay, Wis., after having been chief chemist for the Thilmany Pulp and Paper Company, Kaukauna, Wis.

James Murray, after having been employed by the Pawtucket Glazed Paper Company, of Pawtucket, R. I., is now with the Martin Cantine Company at Saugerties, N. Y.

Arthur H. Dumaree, who for some time was at the Bastrop mill of the International Paper Company, has now joined the staff at Camden, Ark.

F. Hayward Johnson, Jr., after having been with the Cherry River Paper Company at Richwood, W. Va., for several years, is now connected with the Consolidated Water Power and Paper Company at Wisconsin Rapids, Wis.

Floyd Mackay is now with the Puget Sound Pulp and Timber Company after having been employed by the British Columbia Pulp and Paper Company at Port Alice, B. C.

Everett Uebrick, formerly of Port Alfred, P. Q., is now chief chemist of the Dunn Sulphite Paper Company, Port Huron, Mich.

Dr. C. E. Curran, chief of the pulp and paper division of the Forest Products Laboratory, Madison, Wis., was a New York visitor on Saturday.

Miss Louise McGrath, chief chemist of the Booth Chemical Company of Elizabeth, N. J., is now doing special work in the mills of the Fibreboard Products, Inc., in California.

## New TAPPI Members

E. Bache, chemical engineer, Bogalusa Paper Company, Bogalusa, La.

William Colley, paper tester, John A. Manning Paper Company, Troy, N. Y.

Charles Davidson, superintendent, Southworth Company, Mittineague, Mass.

M. J. Dumit, superintendent of sulphite mill, Chesapeake Corporation, West Point, Va.

M. F. Flotow, chemist, Riverside Fibre and Paper Company, Appleton, Wis.

R. F. Huntley, chief chemist, Oswego Falls Corporation, Fulton, N. Y.

U. A. Keppinger, assistant manager, Griffith Rubber Mills, Portland, Ore.

R. A. Masten, engineer, Bureau of Tests, International Paper Company, Glens Falls, N. Y.

G. H. McGregor, research chemist, Northwest Paper Company, Cloquet, Minn.

Kasimir Skarzynski, vice president, Robert Saenger Company, Warsaw, Poland.

K. A. Taylor, research chemist, Oxford Paper Company, Rumford, Me.

E. A. Weber, sulphite superintendent, Oregon Pulp and Paper Company, Salem, Ore.

## Miami Valley Superintendents Meet

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 7, 1930.—The Miami Valley Division of the American Pulp and Paper Mill Superintendents Association held a joint meeting with the Printing House Craftsmen of Dayton and vicinity last Saturday night at the Engineers Club.

Norman A. Altmann, of the Butler Paper Corporation of Chicago, spoke on "Paper Making with Its Relation to Printing." Mr. Altmann's talk, which was the feature of the meeting, was illustrated with motion pictures and proved highly interesting and educational.

This was the first joint meeting conducted by the two organizations and proved conclusively the value of cooperation in work of this kind.

# Advanced Kraft Mill Recausticizing Practice*

By C. L. Knowles[1]

Continuous recausticizing, initially applied to soda pulp mill practice a decade or so ago, was first adopted by a manufacturer of sulphate pulp within the last three years. Notwithstanding the late date at which the sulphate branch of the chemical pulp industry made its initial installation, it is significant that in sulphate practice continuous causticizing has reached its highest development and has been applied on its largest scale.

Other papers[2] by the author and his associates have been presented before groups of the Superintendent's Association and the TAPPI, discussing in considerable detail the theory underlying continuous causticizing, the equipment used and the flowsheets adopted in many instances. In this paper the earlier studies, all of which have been published in the PAPER TRADE JOURNAL as shown in the accompanying footnote, will be passed over very quickly on the assumption that those present at this meeting are conversant with continuous causticizing, at least to a slight degree.

It is the purpose of this paper to discuss the most recent advances in sulphate recausticizing plant design, as embodied in the accompanying layouts. A great deal of thought has gone into the design of this plant with the result that it may properly be considered as the last word in sulphate mill recovery practice, both from the chemical and mechanical standpoints.

*Presented at meeting of Southern Div. of the Superintendents Assn., Tuscaloosa, Ala., April 3, 1930.

[1] Manager Chemical Division, Dorr Co., Inc., New York.

## Conclusions Drawn from Earlier Studies

The following points have been discussed in the earlier papers referred to in the footnote and may be considered as factors having an important bearing on recausticizing practice, the selection of equipment, and the preparation of plant layouts.

### GREEN LIQUOR CLARIFICATION

1. Insoluble impurities in green liquor retard causticizing, slow up the rate of settlement of the calcium carbonate precipitate, impair the porosity of filtration media and give trouble in lime and reburning due to over or under burning.

2. Contamination of the mud and the tendency of the impurities to accumulate in a closed system, preclude the satisfactory reburning of mud if the green liquor is not clarified prior to recausticizing.

### LIME SLAKING

The manner of preparing milk of lime governs to a large degree the physical character of the final calcium carbonate precipitate. If the following precautions are observed, a relatively coarse precipitate will be formed which settles rapidly in subsequent decantation equipment.

[2] Continuous Recausticizing in Pulp and Paper, Dr. C. L. Knowles, TAPPI, Feb., 1927, N. Y. Meeting; Paper Trade J., April 7, 1927. Continuous Recausticizing for Sulphate Pulp Mills, Dr. C. L. Knowles and A. Anable, Supts. Assn., May, 1927, Richmond Meeting; Paper Trade J., July 7, 1927. Some Variables Affecting the Behavior of Limes Used in Causticizing, Dr. J. V. N. Dorr and Dr. A. W. Bull, Amer. Chem. Soc., April, 1927, Richmond, Va., Meeting; Paper Trade J., May 26, 1927.

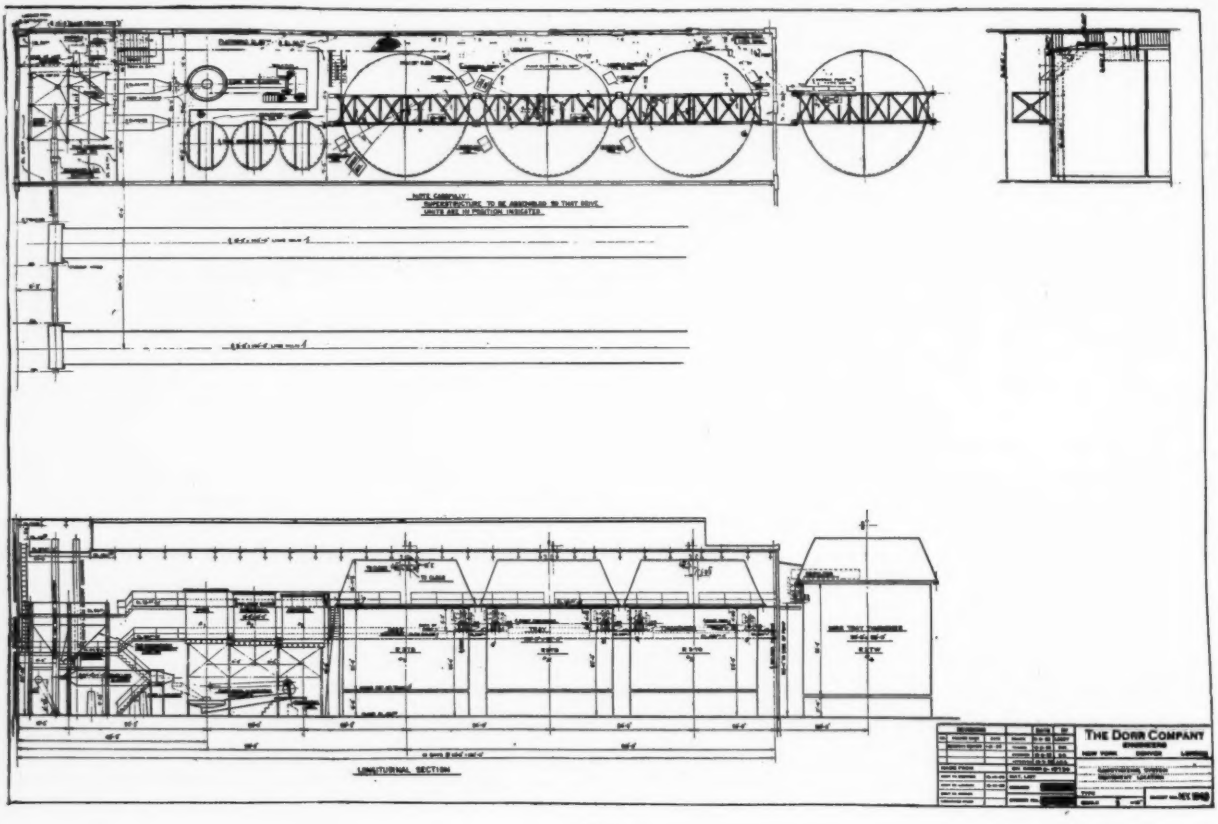



FIG. 1.
General Plant Layout.

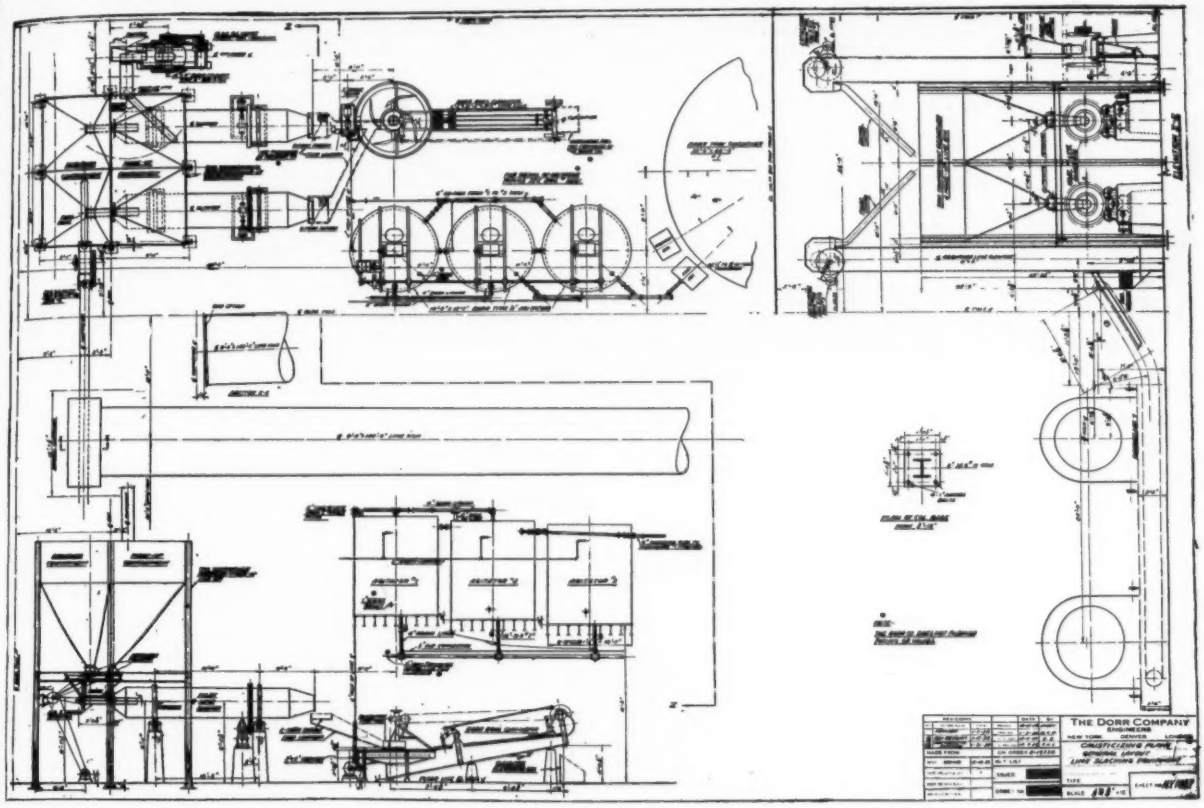



FIG. 2.
General Arrangement Lime Handling and Recausticizing Equipment

1. Burned lime should be slaked in a reduced volume of green liquor to form a coarse, quick settling hydrate.

2. The hydrate should be repulped with the balance of the available green liquor to permit the rapid separation, due to differential settling rates, of the grit, sand, unburned core and other inert materials in the burned lime.

3. Causticizing should proceed at an elevated temperature, about 85 to 90 deg. C., to assure rapid conversion and a high settling rate of the precipitate.

4. Causticizing should not be unduly long or violent, lest the coarse precipitate be broken down into smaller crystals having an inferior settling rate.

### WHITE LIQUOR RECOVERY

1—Covered and insulated tanks, equipped suitably for continuous decantation of liquor and discharge of mud, reduce convection currents and temperature losses to the minimum, thus facilitating rapid and complete settlement.

2—Removal of white liquor from the top of tanks assures highest purity.

3—Removal of mud from the bottom of the tank assures maximum sludge density.

### MUD WASHING

1—Continuous counter current flow of wash water and mud permits multiple stage washing with a given volume of water without the operating inconvenience of a multiplicity of weak liquor storage tanks.

### MUD REBURNING

1—Dewatering the lime mud ahead of rotary kilns makes it possible to utilize the vacuum filters for an additional stage of washing, subsequent to decantation washes, and the reuse of the filtrate as a wash solution at a preceding mud washing station.

### PLANT DESIGN

Fig. 1 shows the arrangement of a suggested sulphate recausticizing plant. This plant may conveniently be broken up into the following major operations as a preliminary to a detailed description.

Burned lime handling
Green liquor clarification
Dregs washing
Recausticizing
White liquor decantation
Mud washing
Lime and mud reburning

### Burned Lime Handling

Fig. 2 shows the layout of that part of the plant devoted to lime handling. Reburned lime from the kilns falls onto a pan conveyor which in turn feeds an elevator discharging into either of two reburned lime bins. Make-up burned lime is delivered by railroad at a siding, unloaded into a hopper feeding a 1 inch jaw crusher and the crushed product delivered by means of an elevator to either one of two make-up lime bins.

Each bin is supplied with an automatic feeder so that reburned lime or make-up lime may be fed continuously to either one of two rotary lime slakers, one of which is a spare. Obviously this flexible arrangement makes it possible to feed various mixtures of reburned and make-up lime to either slaker, or, if desired, to operate both slakers at the same time on reduced feeds.

A portion of the clarified green liquor is used to slake the lime, producing a thick paste which is diluted to the free settling state with the balance of the clarified green liquor. This pulp then flows by gravity to a bowl classifier for the removal of inert impurities, such as grit, sand and unburned core.

The overflow of the bowl classifier is a mixture of smooth, grit-free calcium hydrate, suspended in green liquor. This is ele-

vated to the causticizing station by a small centrifugal pump. The inert impurities are continuously discharged in a drained condition by the classifier and carried away to a convenient waste receptacle by a small conveyor.

### Green Liquor Clarification

Referring to Fig. 3, the piping layout, it will be seen that the raw green liquor from the smelt dissolving tanks is clarified in a thickener equipped with three trays, equivalent to four, superimposed settling compartments. This is thickener No. 3 on the layout arrangement. It is heavily insulated against temperature drop, an essential point in the handling of strong green liquor.

The top compartment of this thickener produces no overflow, but acts simply as an equalizing storage tank to absorb fluctuations in the smelt dissolving cycle. It also serves the useful purpose of conditioning the feed and causing the suspended solids to flocculate, thus improving their settling qualities.

Clarification takes place in the three lower compartments. The clarified overflows are combined in collection boxes, attached to the upper portion of the thickener tank, and flow by gravity to green liquor storage tanks, not shown on this layout.

### Dregs Washing

The settled dregs are removed continuously from the bottom of the green liquor clarifier by a diaphragm pump which discharges them into the upper compartment of a three tray thickener of the washing type. This thickener is located outside of the building and is not insulated against heat loss since an elevated temperature is not essential at this point.

The compartments of this thickener operate in series, for washing purposes, rather than in parallel to give additional clarification capacity. Wash water, introduced in the lowermost compartment flows counter currently with respect to the dregs and eventually overflows from the top compartment in the form of weak solution and is used for smelt dissolving under the furnaces. The dregs, after three stages of washing in the various compartments, are removed continuously from the bottom of the thickener tank by a diaphragm pump and sent to waste, preferably with the lime grits from the bowl classifier.

### Recausticizing

The grit-free calcium hydrate, suspended in clarified green liquor overflowing from the bowl classifier in the burned lime handling station, is pumped to the first of three causticizing agitators, arranged in series on slightly different elevations to permit gravity flow through them. Each agitator tank is equipped with steam heating coils and is covered and insulated to minimize heat losses.

The volume provided in the three tanks gives an hour's contact during causticizing. Mixing is thorough but not so violent as to destroy the coarse form of the precipitate, and thus retard the rate of settlement in subsequent equipment. By-pass lines are provided so that any causticizer may be cut out of the circuit without affecting the operation to a greater extent than a reduction of the duration of causticizing.

### White Liquor Decantation

The discharge from the last of the three causticizers flows by gravity into the feed box of a thickener equipped with three trays, dividing the tank into four superimposed settling compartments. The thickener tank is covered and thoroughly insulated against heat loss so that there may be a drop in temperature during decantation of not more than 5-10 deg. F.

The overflows from the various compartments, all of which operate in parallel, are combined in collection boxes, near the top of the tank and flow by gravity to white liquor storage tanks

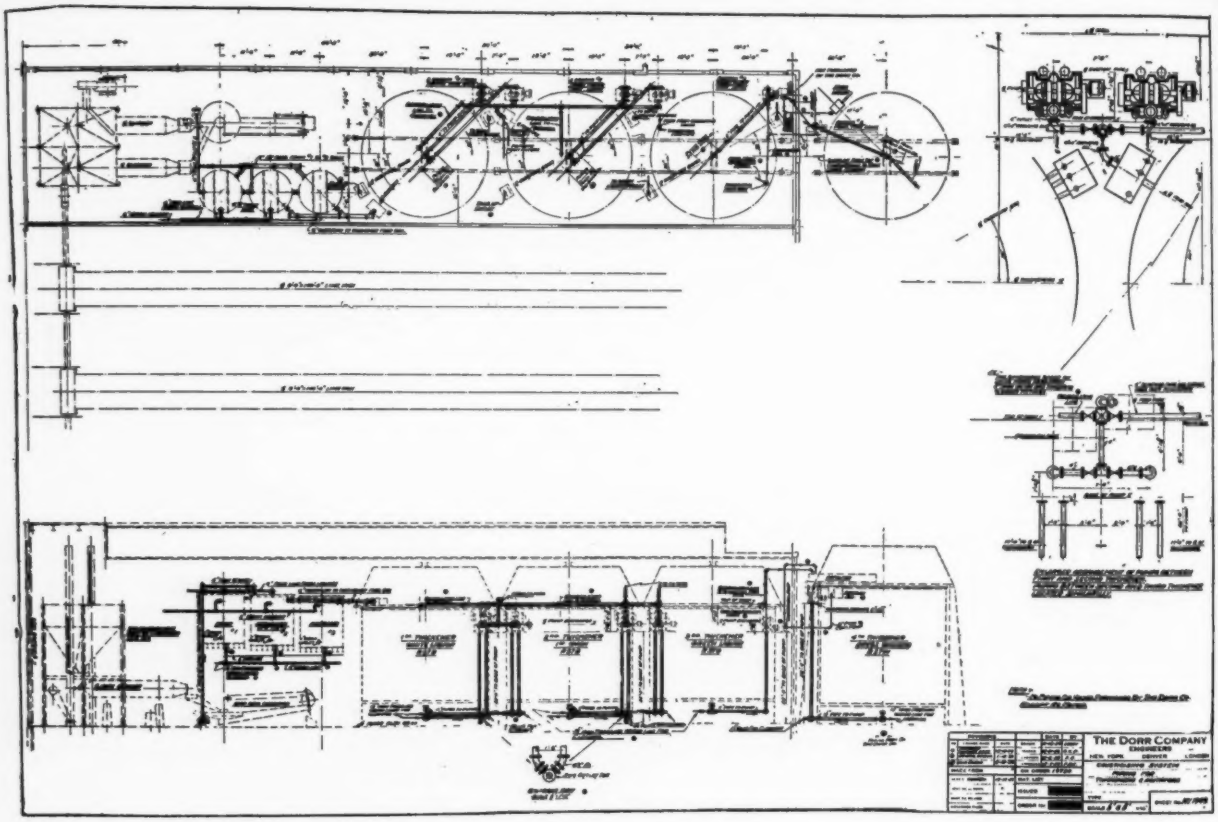



FIG. 3.
Piping Layout.

conveniently located with respect to the digesters. The settled lime mud is withdrawn continuously by either one of two diaphragm pumps and passed on to the mud washing step for the recovery of white liquor entrained in the sludge.

Should it be necessary, for any reason, to remove this thickener from service temporarily, approximately 75 per cent of the volume of white liquor may be drawn off through a connection in the side. The second or mud washing thickener, being of the same size and type may be used for white liquor decantation during a shut down of the first thickener, the only loss being that of one stage of mud washing.

### Mud Washing

The lime mud removed from the white liquor thickener is repulped with filtrate from the vacuum filters, ahead of the rotary kilns, and the mixture thickened in the second or mud washing thickener. The weak liquor overflow from this thickener flows by gravity to storage near the smelt dissolving tanks, under the furnaces, being used there for dissolving smelt in the same manner as the weak solution overflowing the dregs washing thickener. The settled lime mud is withdrawn continuously by either one of two diaphragm pumps and pumped to the rotary vacuum filters in the kiln room.

Should it be necessary to remove this thickener from service temporarily, about 75 per cent of the weak liquor contained in it may be drawn off through a connection in the side. While out of service the sludge may be pumped directly from the white liquor thickener to the filters without interrupting operation. One stage of mud washing is lost by this procedure which should not prove harmful for a short period.

### Mud Reburning

The washed mud from the second thickener is pumped to the vacuum filters in the kiln room. These filters, first, remove excess weak liquor, and second, wash the lime cake with sprays of hot water in order to reduce the caustic content to the minimum point. The washed cake is fed to the rotary kilns by a water-jacketed, spiral conveyor.

The filters should be located at such an elevation above the preceding thickeners that filtrate may gravitate to the feed box of number two thickener for repulping the mud from thickener number one. Furthermore, provision should be made so that excess sludge, pumped to the filtration station, may overflow from the filters and flow by gravity back to the preceding thickener. This latter innovation eliminates the need for surge or feed tanks ahead of the filters and makes careful manipulation of the filters unnecessary.

The rotary kilns may be fired with powdered coal, oil or natural gas. The reburned lime drops onto an apron conveyor and is returned to the lime bins, thus completing the cycle of operations described in this paper.

### Special Features Incorporated in Layout

The following features of the layout have been discussed briefly in the foregoing, but may be reconsidered at this point as a recapitulation of the outstanding points in the advanced practice incorporated in this design.

#### Chemical Control

1—Reburned and make-up lime handled continuously by accurate mechanical feeders.

2—Clarified green liquor corrected to standard strength and fed by gravity at uniform rate to lime slakers and classifier.

3—Wash water, equal in volume to white liquor production, with minor correction for water lost in dregs and filter cake, supplied at uniform rate from constant head tank, about 40 per cent being used for dregs washing and 60 per cent for mud washing.

#### Duplicate Units

The following provisions have been made for uninterrupted operation by supplying spare units or units mutually interchangeable.

1—Two lime slakers (one a spare), each supplied with lime by two automatic feeders from two bins, one containing make-up lime, the other reburned lime.

2—Three, interconnected, series causticizers, provided with bypasses permitting any one to be removed from service without interrupting the flow.

3—Two tray thickeners, used respectively for white liquor decantation and mud washing, interchangeable in case of a shut down of either one at the sacrifice of one stage of mud washing.

4—Two sludge pumps (one a spare) on each lime mud thickener to permit replacement of rubber diaphragms and cleaning of pipe lines without interrupting the flow of material.

5—Two kilns and two batteries of vacuum filters, permitting reburning of a portion of the lime mud during shut down for kiln relining or filter overhaul.

#### Gravity Flow

1—Clarified green liquor flows by gravity from green liquor clarifier to correction tanks and from there through the lime slakers and bowl classifier. It is then pumped to causticizers.

2—White liquor flows by gravity through causticizers and white liquor thickener to storage near digesters.

3—Wash water flows by gravity to filters, mud washing thickener and dregs washing thickener and thence to storage near smelt dissolving tanks.

4—Filter overflow returns by gravity to mud washing thickener.

With the exception of raw green liquor and milk of lime the only material pumped is sludge, the pressure head in which case seldom exceeds ten feet.

#### Operating Labor

1—Liquor Room.

One good operator to handle lime slaking, causticizing, white and green liquor decantation, and dregs and mud washing.

One helper to handle make-up, lime crushing and storage and correction of strength of clarified green liquor.

2—Kiln Room.

One filter operator

One lime burner

#### Operating Power

The total installed power required to drive a plant of this type varies considerably with the scale of operations, the larger plant requiring less power per unit of output and vice versa. Total motor capacity should vary from .75 to 1.25 installed horsepower per ton of daily pulp production. Total power consumption, allowing for overpowered drives to take care of starting loads and for the discontinuous service of crushers, elevators, and spare feeders, slakers and pumps, should amount to from 12 to 18 K W H per ton of daily pulp production.

It has been attempted in this paper to show the improvements in methods and facilities now available in the form of complete chemical reclaiming plants, designed, equipped, erected and serviced under unified direction. No attempt has been made in this paper to discuss comparative results, efficiencies and operating figures, which necessarily vary greatly depending upon the type of batch plant with which the comparison is made and the degree of skill attending its operation.

With your own intimate knowledge of the problem at your own plants, you can easily visualize the extent to which the plant discussed herein offers advantages over older practice in installation and operating convenience, efficiency, floor space required and overall economy. The superintendents of two mills, one soda and other sulphate, who replaced batch recausticizing plants, with many years of service ahead, with continuous plants during the last six months, confidently believe that, aside from obvious operating conveniences, operating savings of a high order will be secured over and above earlier practice, repaying the investment in two or three years out of savings. We accordingly believe that these modern tools, skillfully operated in capable hands, may contribute their share toward substantial savings in the Southern kraft field.

# Current Paper Trade Literature

## Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts and Bibliography of the Technical Association of the Pulp and Paper Industry

Clarence J. West, Chairman

**For additional information regarding these abstracts subscribers should address the chairman of the Abstracts Committee, Dr. Clarence J. West, National Research Council, 21st and B Streets, Washington, D. C.**

### Beating

**Propeller Agitation.** Arthur L. Whiteside, Hill Clutch Mech. & Fdry. Co. Paper Tr. Jr. 88, No. 24, 87-89 (June 13, 1929); Pulp Paper Mag. Can. 27, 880-882, 903-909 (June 13, 1929); Paper Mill 52, No. 26, 16-21 (June 29, 1929). A brief discussion of propeller agitation in general, with a description of the Hill tubular agitator and discussion of its merits and possibilities in the paper industry. A. P.-C.

**Beating.** P. E. Hodgdon, the Munising Paper Co. Paper Industry 11, 479-483 (June 1929); Paper Tr. J. 89, No. 3, 61-63 (July 18, 1929); Paper Mill 52, No. 28, 20-24 (July 13, 1929). It has been found in practice that rebuilt high speed beaters have the following advantages over the Hollander type beater: increased circulation, ensuring good mixing and uniformity of sizing and coloring, saving in power, greater production due to the combined effects of faster circulation, greater size of tub and higher stock consistency, quicker and easier dumping and higher roll speed. Exceptionally promising results have been obtained with a new type of vertical beater, built by Love Bros. at Aurora, Ill., consisting of ten vertically superposed sections, each of which comprises one rotating and one stationary disk each provided with suitable knives or bars, the power consumption for a given strength development in bleached sulphite stock being about ¼ that required in an ordinary beater. The action of the beater roll is discussed to show how the vertical beater gives a proportionately much higher hydration and lower cutting effect than the Hollander type beater. A. P.-C.

**Beater.** Albert Renaud and Papeteries de Malucene. Fr. pat. 657,954, July 19, 1928. A double-walled trough is used, and a fluid is circulated between the walls at any desired temperature, so as to maintain the temperature of the stock in the beater at any desired point. Recording thermometers may be immersed at various points in the beater. A. P.-C.

**Beater.** The Mead Research Engineering Company. Fr. pat. 653,340, Apr. 23, 1928. The beater roll rotates about a vertical shaft and its diameter is equal to the whole width of the trough. There are two bedplates, which are adjustable towards or away from the roll, and which are placed opposite each other in the side walls of the trough. A. P.-C.

**Hydration Paper Formation and Strength.** Gunnar Porrvik. Pulp Paper Mag. Can. 28, 133-136, 149-150 (July 25, 1929). The degree of freeness of pulp is determined by the water which the pulp holds, which is of three kinds; outer capillary water (remaining in the interstices between the fibers), inner capillary water (in the lumen of the fibers) and water in the fiber walls. The holding together of the fibers in paper is not in any essential degree a felting process but a phenomen of colloidal chemical "sizing," or binding of the fibers to one another. The significance of beating is that, through mechanical working, the degree of swelling of the fiber walls is increased, whereby the fibrous tissue is rendered more capable of "sizing" and more plastic. The fibrous walls consist of several sheaths: when the outer sheath (the "sizing" sheath) swells, the power of the "sizing" particles is increased, and thereby the strength. When the fundamental substance swells the fibers are split into fibrils, and a paper of more delicate texture is obtained. Beating is not an uninterrupted process, but falls into three stages, during which essentially different phenomena occur. In the first stage, extending to 30 deg. Schopper-Riegler, the inner capillaries are filled and a portion of the submicroscopic "sizing" substance in the fiber walls is filled with water with simultaneous expulsion of air. In addition, a colloidal swelling of the fiber walls takes place. This results in an increase in the volume of the fibers in their moist state and produces a great increase in their plasticity and "sizing" power. In consequence, these fibers are much more capable of union and sticking together after pressing. In this stage the outer capillaries contract, contributing to the making of a thicker paper with lower absorbency. The most important effect is the fact that the surfaces of the fibers that touch one another increase. In the second stage, extending from 30 deg. to about 80 deg. Schopper-Riegler, the swelling caused by kneading of the fibers increases, which especially contributes to the plasticity of the fibers and the "sizing" power of the outer layer. In the third stage, about 80 deg. Schopper-Riegler, there is an active splitting into fibrils, whereby the inner capillaries cease to exist. Between the fibers a new capillary surface is formed, very short, and consequently resistant to pressure. A. P.-C.

**Rotor-End Guard for Beaters.** J. B. Buehler assignor to Container Corporation of America. U. S. pat. 1,709,246, Apr. 16, 1929. The gap between the end of the roll and the beater trough is covered by a gasket, preferably made of heavy rope held expanded in ring form by means of a ring fixed either to the end of the beater roll or to the wall of the trough. Water is admitted into the chamber formed by the end of the roll, the beater wall and the gasket under sufficient pressure to cause a current to flow outwardly through or around the gasket, which is preferably slightly liquid permeable and has an end mounted so as to permit slight expansion and unseating of the gasket, to facilitate the outward flow of water and to prevent the snubbing of the roll by the rope; e.g., one end of the rope is fixed permanently to the above-mentioned ring, while the free end passes around a pulley and is attached to a suitable weight and allowed to hand freely. A. P.-C.

**Beater Roll.** F. G. Feeley assignor to E. D. Jones & Sons. U. S. pat. 1,702,633, Feb. 19, 1929. The invention provides for a simple and economical construction of bandless beater rolls in which the fly bars can be very simply and easily locked in position and removed for renewal. A. P.-C.

**Beater Roll.** A. E. Bridge assignor to the Black-Clawson Company. U. S. pat. 7,709,112, Apr. 16, 1929. According to this invention the spacing elements between the fly bars are provided with outward end projections to provide retaining walls at the ends of the roll, and the fly bars are provided with pins which are retained by recesses in the spacing elements so that outward and lateral movements of the fly bars are prevented. A. P.-C.

**Applications of Ozone.** A. Vosmaer. Chem. Weekblad 26: 194-195 (1929). An account of the use of ozone for bleaching paper and other substances. C. J. W.

### Fillers and Coating Materials

**Prevention of Rancidity in Vegetable Oils When Forming Part of Plastic Compositions for Coating Paper.** G. E. Scharff and Imperial Chem. Industries Ltd. Eng. pat. 308,700, Nov. 23, 1927. To such compositions, consisting principally of nitrocellulose, camphor, vegetable oil, pigments or fillers, the addition of about 2 per cent of finely-ground magnesium oxide, calculated on the weight of the vegetable oil, is made. A. P.-C.

**China Clay in Relation to Paper.** J. Edington Aitken. World's Paper Tr. Rev. 91, 2082-2092 (June 14, 1929). An address reviewing the function of china clay in paper, its preparation and valuation. A. P.-C.

**Retention of Clay in Paper.** F. W. Bailey. Proc. Tech. Soc. Papermakers Assn. 9, 80-84 (1928). A series of mill tests made during the manufacture of medium-sized super-calendered printing papers containing 50 per cent of mechanical wood pulp indicate that clays of widely different degrees of "fatness" (as indicated by the bulk of a 5 per cent or 10 per cent aqueous suspension of the clay after settling for varying periods of time) show no appreciable differences in retention. A. P.-C.

**Testing of Casein for Industrial Purposes.** W. L. Davies. Paper Makers Monthly J. 67, 279-283 (July 15, 1929). A brief discussion of the chief impurities found in casein and of their effects, together with an outline of the methods of chemical analysis of casein. A. P.-C.

**Detection of Starch Glue and Casein in and upon Paper.** T. C. Bentzen, Whiting-Plover Paper Co. Paper Mill 52, No. 21, 20-21, (May 25, 1929); Paper Tr. J. 88, No. 23, 59 (June 6, 1929). Detailed directions are given for the detection of starch as surface sizing or loading by means of iodine solution. Glue and casein can be detected by the ammonium molybdate precipitate. Glue is tested for by means of 10% tannin solution, and casein, if present, will give a precipitate with ammonium molybdate in the filtrate from the tannin-glue precipitate. A. P.-C.

### Analytical

**Tentative Method for the Analysis of Salt Cake.** F. J. Curtis, Merrimac Chemical Company. Paper Trade J. 88, No. 22, 41 (May 30, 1929). A description of the method tentatively proposed for adoption as official by the Technical Assn. of the Pulp and Paper Industry.—A. P.-C.

**Analysis of Hypochlorite Bleaching Materials.** W. L. Savell, Mathieson Alkali Wks., Inc. Paper Tr. J. 88, No. 21, 81-82 (May 23, 1929); Paper Mill 52, No. 32, 24-25 (Aug. 10, 1929). A description of the methods to be used in the analysis of bleaching powder or of bleach liquor, including sampling, available chlorine (arsenite method, Bunsen method, Mathieson bleach tester method), chlorates, calcium carbonate, and alkalinity.—A. P.-C.

### Pulp Testing

**New Freeness and Consistency Tester.** D. S. Davis, (now with Mead Pulp and Paper Company), International Paper Co. Paper Tr. J. 88, No. 22, 42-43 (May 30, 1929). A brief description of the Williams precision freeness tester and discussion of its merits. The top part consists of a graduated glass cylinder which fits into the bottom part by means of a bayonet-lock joint, and upon the lower part rests the flat filtering screen. The cup or cylinder is revolved through a small arc by means of a lever handle having a roller wheel which rides over the stem of a stop watch. The revolving cup also forms the valve which starts and stops the flow of liquid by having holes in the bottom which register with those in the fixed portion of the instrument at one position of the lever handle, so that rotating the cup by means of the handle not only actuates the valve which starts and stops the flow but at the same time mechanically starts and stops the stop watch. During a freeness test the arrow on the lower valve points downward. Turning the handle through 90 deg. connects the tester with suction, enabling the formation of a pad for consistency determinations or the use of the tester in filtering white water. To carry out a freeness test fill the cup to the 1000 cc. mark with stock at 0.2 to 0.4% consistency, stir with a thermometer noting the temperature, open the valve, when the level has fallen to the 0 mark close the valve; by the use of a chart (not given in the article) the freeness value in seconds is converted to that at the standard temperature and sample weight. The lower valve is turned, connecting the tester with suction, the upper valve is reopened, the majority of the water is drawn from the mat, the cylinder is raised, the mat is removed from the perforated plate, pressed between blotters, dried at 105 deg. C. and weighed. Complete consistency and temperature characteristics of the instrument will be published later. Freeness weight plots for any sulphite stock likely to be encountered in the mill are convergent straight lines, and the coordinates of the point of convergence are very nearly those required by the freeness theory. The same is true of the freeness temperature plots.—A. P.-C.

**Report on Microscopical Analysis.** C. E. Libby, N. Y. State College of For. Paper Tr. J. 88, No. 22, 44-45 (May 30, 1929). A final compilation of the results of collaborative work carried on during the past two years to determine the accuracy of the dot count method of fiber analysis. As the groundwood content found was consistently low and the deciduous wood soda pulp consistently high, it is suggested that the establishment of weight factors for these two fibers would increase the accuracy of the method. Though the average error was higher than by the present standard methods of analysis, the dot count method is likely to give better results than the present standard methods in the hands of an analyst relatively inexperienced in quantitative fiber determinations, and its adoption as official is therefore recommended.—A. P.-C.

**New Method for Determining Copper Number.** K. G. Jonas and A. Drössel. Paper Tr. J. 89, No. 9, 49-50 (Aug. 29, 1929). The following modification of the Schwalbe-Braidy method for determining the copper number of pulp is proposed: soften 2.5 g. of pulp with 50 cc. of water in a 300 cc. flask (with highly pressed pulps it is best to allow the mixture to stand over night), shake by hand for 2 min. with 25 glass beads 7 mm. in diameter, transfer to a 300 cc. erlenmeyer with 50 cc. of water, heat to 100 deg. C. add the boiling Braidy solution (10 cc. of copper sulphate and 190 cc. of carbonate-bicarbonate solution) and complete the determination by the usual Schwalbe-Braidy method.—A. P.-C.

**Pulp Evaluation and its Adaptability to Papermaking.** O. P. Gephart, Oxford Miami Paper Company. Paper Tr. J. 89, No. 1, 53-55 (July 4, 1929). A discussion of the tests which should be carried out on purchased pulp to determine its suitability for the purpose to which it is to be put, and of the interpretation of the results of these tests, particularly as regards strength developed on beating under the conditions existing in the purchasing mill.—A. P.-C.

**About Wood Pulp and its Properties.** P. Klem. World's Paper Tr. Rev. 91, 2190-2200 (June 21, 1929); Pulp Paper Mag. Can. 28, 173-175 (Aug. 1, 1929). A brief description of the Hurum Flour Tester (for separating and estimating flour in groundwood) with a discussion of its advantages.—A. P.-C.

### Paper Testing

**Value of Tests for Paper.** H. Z. Schniewind. Foreign Paper Mills, Inc. Pulp Paper Mag. Can. 28, 289-291 (Aug. 22, 1929). A brief discussion of the value of testing paper to determine its suitability for the purpose for which it is intended.—A. P.-C.

**Notes on Analytical Paper Microscopy.** K. P. Geohegan, the Aetna Paper Company. Paper Tr. J. 88, No. 23, 63-65 (June 6, 1929); Paper Mill 52, No. 22, 18-19, 22-24 (June 1, 1929); Pulp Paper Mag. Can. 28, 363-366, 382 (Sept. 5, 1929); Paper Industry 11, 473-479 (June, 1929). A brief discussion of the various applications of the microscope to paper analysis, with bibliography of 25 references.—A. P.-C.

**Practical Paper Tests for Printers.** George French. World's Paper Tr. Rev. 92, 50-54 (July 5, 1929). A brief outline of simple tests which should be made by the printer to determine the fitness of paper for any specific use.—A. P.-C.

**Method and Mechanism for Determining the Moisture Content of Paper or other Material.** A. Allen assignor to Atlantic Precision Instrument Company. U. S. pat. 1,708,073. Apr. 9, 1929.

The sheet of paper on the paper machine is passed over an electrical condenser the dielectric of which consists of parallel fibers of reverted cellulose impregnated with a hygroscopic salt. Variations in the moisture content of the sheet affect the moisture content of the dielectric of the condenser, and consequently the electric characteristics of the condenser, of which the capacity is the one lending itself most readily to measurement. Variations in the capacity of the condenser are measured by using the condenser as the tuning element of a high-frequency oscillatory electric circuit, the frequency and wave-length of which are varied with the capacity of the condenser.—A. P.-C.

**Bursting Strength Tester.** C. B. Thwing assignor to Thwing Instrument Company. U. S. pat. 1,709,638, Apr. 16, 1929. The principle of the instrument consists in measuring the bursting strength of paper, or other material, by observing the retarding effect of the specimen on a mass projected there through. The specimen to be tested is supported at its edges on an annular shoulder which is formed with a central opening directly beneath the central portion of the specimen. A weighted plunger is placed above and in vertical alignment with the center of the specimen. The lower end of the plunger is provided with a semi-cylindrically-shaped portion, so that the bursting strength may be measured in any desired direction relatively to the "grain" or direction of the specimen. A pair of latches hold the plunger in elevated position and are released for making the test. The upper end of the plunger is provided with a shoulder positioned to engage a cap member mounted on the end of a vertical coil spring just as the head portion of the plunger passes clear of the under side of the specimen. Since the movement of the plunger after passing through the specimen is inversely proportional to the strength of the sample, means are provided for directly indicating such movement by displacement of a pointer over a suitably graduated scale. —A. P.-C.

**Function of Chemical Analysis in the Manufacture of Papier Mache.** A. Lambrette. Papeterie 51, 737-738 (July 10), 798 (July 25, 1929). A brief description of a scheme of analysis of papier mache and discussion of the interpretation of the results.—A. P.-C.

### Paper Durability

**Causes and Prevention of Deterioration in Book Materials.** Robert P. Walton, N. Y. Pub. Library. Paper Tr. J. 89, No. 6, 53-58 (Aug. 8, 1929). Abstracts and descriptive summaries of work published on the subject, arranged in chronological order.—A. P.-C.

**Effect of Cathode Rays on Hydrocarbon Oils and on Paper.** C. S. Schoepfle and L. H. Connell. U. of Mich., Ann Arbor, Mich. and the Detroit Edison Company, Detroit, Mich. Ind. Eng. Chem. 21, 529-537 (June 1929). Paper subjected to the action of cathode rays or the silent electric discharge gives moisture, hydrogen and carbon dioxide as the principal volatile products. The importance of the reaction of oils and paper under the influence of the silent electric discharge as discussed in connection with the deterioration of impregnated, paper-insulated cable during use.—A. P.-C.

### Machinery

**Wood Handling for Pulp Mills.** G. L. M. Hellstrom, Paper Machy., Ltd. Paper Mill 52, No. 23, 30, 32, 64 (June 8, 1929); Pulp Paper Mag. Can. 27, 875-878 (June 13, 1929); Paper Tr. J. 88, No. 24, 86-87 (June 13, 1929). A brief discussion of log handling in the mill yard, barking, chipping and chip screening, from the standpoint of obtaining maximum efficiency.—A. P.-C.

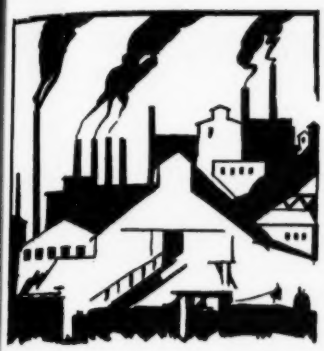
**Process for Eliminating Water from Pulp or Board and Drying It.** Richard Kastner and Herbert Schmolka. Fr. pat. 650,-022. Layers of pulp about 12 to 15 cm. thick are placed between two wire screens and attacked in a hydraulic press, adjacent screens being separated by smooth, unperforated metal sheets. The pile is pressed until the consistency is about 60% air dry; pressure is continued with slight heating to facilitate removal of the water by increasing its fluidity; finally the material is heated in the press until the remaining moisture has been evaporated. Heating is produced by connecting the metal sheets to a source of direct or alternating current.—A. P.-C.

**Recovery and Reuse of Mill Effluents.** R. H. Clapperton. World's Paper Trade Rev. 92, 142-146 (July 12, 1929). A brief description of the Marx funnel filter (sedimentation save all) and discussion of its merits.—A. P.-C.

**Indicating and Controlling Method and Mechanism for Papermaking Machines.** A. Allen assignor to Atlantic Precision Instrument Company. U. S. pat. 1,708,074, Apr. 9, 1929. The sheet of paper on the machine is passed between two parallel metal plates constituting an electrical condenser, of which the paper forms part of the dielectric. Variation in the weight (and consequently in the mass) of the paper alters the electric characteristics of the condenser, and more particularly its capacity. The resultant variations in the capacity of the condenser are best measured by inserting the condenser in a high-frequency oscillatory circuit and detecting the changes in the current of a high-frequency receiving circuit which has been tuned somewhat out of resonance with the sending circuit of which the condenser forms part. Variations in the moisture content of the paper are compensated for by means of a supplemental condenser of the proper size; the dielectric of this condenser consists of a suitable hygroscopic material (e.g., reverted cellulose fibers which have been impregnated with a hygroscopic salt), and the sheet of paper is passed over this condenser so that the moisture content of the dielectric will be proportional to that of the paper. The resultant changes in capacity of the supplemental condenser are used to oppose the changes in capacity of the main condenser due to changes of both paper and moisture so as to leave effective, in determining the nearness to resonance of the two circuits, only those capacity changes due to variations in the weight of the paper. The changes in current are measured by means of an indicating galvanometer; and if the other conditions of the electric circuits remain substantially constant, the scale may be calibrated directly in terms of dry paper weight. If desired, the indicating means may be caused to control automatically the mechanism for varying the feed of pulp to the paper machine wire, so as to maintain the weight of paper closely within definite limits.—A. P.-C.

**Toledo Continuous Weighing Scale.** E. G. Thomas, Toledo Scale Company. Paper Mill 52, No. 23, 10, 12, 66 (June 8, 1929); Paper Tr. J. 88, No. 2, 97-98 (June 13, 1929). In the Toledo Continuous Weighing Scale the center of a substantially horizontal sheet of the material to be weighed is supported on a movable roller, which is hung from scale mechanism. The weight of the sheet is offset by an appropriate poise and a Toledo pendulum equipped with a pointer traveling over a chart. The scale is set for any desired weight per running unit of length by appropriately locating the poise on a graduated beam, while the movements of the scale indicator show the departure of the sheet weight from the normal. The application of the device to paper machines is briefly discussed.—A. P.-C.

**Method of Operating Jordan Refiners.** C. A. Tifft. U. S. pat. 1,708,434. Apr. 9, 1929. The stock is pumped from the machine chest to the jordan box in amounts greater than can be handled by the jordan, the excess overflowing back from the jordan box into the machine chest. The stock passing from the jordan to the paper machine is made to flow through an adjustable opening, by means of which the amount of stock fed to the paper machine can be regulated. The jordan box may be placed so as to give a considerable head (up to 10 feet or more) on the stock in the jordan. The method is claimed to permit of spacing the jordan knives further apart (resulting in longer life of the knives) and producing more hydration and less cutting of the fibers, increasing the strength of the paper and reducing the time required for refining.—A. P.-C.



SECTION OF THE
COST ASSOCIATION OF THE PAPER INDUSTRY
Affiliated with
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# Putting Profits into Paper*

By A. W. Ramsdell[1]

Possibly my subject would be more logical if it were "Keeping Paper Manufacturing A Profitable Business," for by and large, the manufacturing of paper (compared with the manufacturing of many other commodities) has been, and still is, a profitable business.

There are, however, certain tendencies in the business which indicate that it may be an increasingly difficult task to continue to secure adequate profits from the manufacturer of paper. Even now, and for some years past, certain branches of paper manufacturing have found it difficult, or impossible, to secure an adequate net return. Others are bound to get into the unprofitable classifications unless great care and foresight are exercised.

### Fundamental Profit Problem

Before considering the various complex factors involved in securing an adequate profit from paper manufacturing as a business, let us look for a moment at a basic and fundamental profit problem which is relatively simple, and then compare this with the complex problems which the paper manufacturer faces.

Gold mining is a rather basic and elemental business. An ounce of gold of certain purity is worth $20.63. Therefore if you are mining gold, and it costs you less than $20.63 an ounce to mine it, the difference is profit, and if it costs more than $20.63, the difference is loss.

The United States Government establishes the selling price and rather insists that the establishing and maintaining of the value of gold stabilizes our money value, and our entire monetary and commercial structure. Just imagine the havoc that would follow if the price and value of gold were not stabilized by our government. Consider for a moment the problems that would arise if the actual value of the gold certificate in your pockets and bank vaults were subject to a constant fluctuation up or down, depending upon the amount of gold mined from month to month, and the price at which it was sold.

But this is the position of the manufacturer of practically every product or commodity today, and the government has thus far frowned upon any attempt to stabilize the selling price of any article or commodity. This basic factor (lack of stabilized value or price) is perhaps one of the principal difficulties which every manufacturer faces. With many millions of dollars of invested capital, the paper manufacturer must find the market for his product, and establish a consumer acceptance for his product at a price which will return a fair net return to him.

### Some Important Facts

In order to do this successfully, it is very important that certain facts be known. Some of the most important of these follow.

A paper manufacturer must know the cost of his materials. This is only mentioned, for most paper manufacturers have a pretty good idea of the cost of the various products which go into their paper today.

A paper manufacturer should know to what extent competition occupies a more favorable situation, because of competition's ability to secure more advantageous prices on raw materials. Failure to recognize the importance of this, has closed some paper mills in the past, and will close others.

A paper manufacturer should know the cost of turning raw material into finished product. On this point much can be done. Too many manufacturers do not *know* their manufacturing costs with sufficient accuracy, and others do not make the most of the knowledge which they have.

A paper manufacturer should know where the best market for his products exists. All markets do not offer equal market potentials.

And last but not least, the paper manufacturer must know, recognize and face the changing conditions under which merchandize must be marketed in the years that lie ahead.

### Changes of the Past Few Years

Let us look for just a brief moment at the changes which have occurred during the past few years.

Changes in business procedure, distribution methods, requirements of a market, etc., do not occur rapidly. There is no overnight change. It is impossible to measure the change which has occurred during the last twenty-four hours. It is difficult to measure the change which occurred during the past year.

Nevertheless, change is the only constant factor in any business problem. In order to have a basis for discussing your future development and progress, we are devoting a few words to some changes which have occurred since 1900.

### Sales Problems of 1900

But let us go back to the merchandising and sales problems of 1900. First of all, the country was largely rural.

There were no automobiles. The entire annual production of the industry in 1900 was eighty-four (84) cars.

Radio was undreamed of.

The Remington Invisible Typewriter was used in the best offices—other offices used pen and ink.

Oil lamps were in common use.

Rambler Bicycles were considered extremely stylish.

Bustles were going out of date and corsets coming in.

Electric street cars were gaining a foothold in larger centers.



* Presented at the convention of the Cost Association of the Paper Industry, New York, Feb. 19, 1920.

[1] Batten, Barton, Durstine & Osborn, Inc., advertising agents, New York.

The larger business concerns and better houses had telephones.

Gas lamps were replacing coal-oil lamps on street corners.

Wages for a carpenter were $2.50.

A complete set of the Encyclopedia Brittanica cost $32.00, a dollar down and a dollar a week.

Edison's Phonograph was an insignificant little box with a small horn about the size and shape of a Fourth of July horn, and was wound with a key which looked much like a mantle clock key.

### No Color Advertising

The *Saturday Evening Post* had a national circulation of 97,569. There was no color advertising. The use of a page space was very unusual.

Eastman Kodak used—2 inch single column.

Poultry and Incubators were advertised regularly.

Among the leading advertisers of the day were the following—Sapolio, Pearline, Rambler's Bicycle, Quaker Oats, Cream of Wheat, Wool Soap, Pettijohn's Breakfast Food, Edison Phonographs, Singer Sewing Machines, Royal Worceseter Corsets, Rubiform Tooth Powder, Williams Shaving Soap, Christian Herald.

The average size of the *Saturday Evening Post* in those days was 12 pages. The chain store was unknown although it was coming into being. Drug Stores actually existed by selling drugs, although a few were shamefacedly selling soda and magazines.

The average manufacturer in 1900 found himself in a position where he was unable to satisfy the ever increasing demands of a tremendous market for his merchandise. National brands were exceedingly few. The old order of merchandising still existed; the retailer purchased in large quantities, did not demand a rapid rate of turnover, and the principal worry of the manufacturer of any staple commodity was to increase production.

With the beginning of the world war, the demand upon our factories was again tremendously increased. We had become to a greater extent than ever before an exporting nation. The natural destruction of war and the situation following immediately after its close, caused this condition to exist until 1920.

### An Entirely New Situation in 1920

In 1920, an entirely new situation faced the average manufacturer. For several years, he had been aiming at greater production. He now found himself with an over-production which the market did not absorb. Up to this time, ability to manufacture on a proper cost basis had been the important issue. Now, however, a new note was sounded, the manufacturer must find his market; he must predetermine how much merchandise he could sell; he must know where he can sell it; and because of overproduction, he will be wise to promote a distinct preference for his product or products.

On the threshold of 1930, the American manufacturer finds himself in a most unusual position, and one not liable to immediate change. In a period of unprecedented national prosperity, the cost of maintaining adequate sales volume to take care of factory production which modern scientific methods have made possible, has absorbed such a large proportion of the difference between the cost and selling price, that the manufacturer is being forced to study distribution methods and markets as carefully and as scientifically as he formerly studied production methods and costs.

### Vital Factors in Net Profit

What are the vital and important factors in maintaining a satisfactory net profit from the manufacture of paper—

1—Good products. You cannot make good profits with poor products over any long period of time.

2—*Accurate up-to-the-minute knowledge of manufacturing costs.*

3—A knowledge of the market for your product.

3—A definite knowledge of sales and distribution costs.

5—And of the utmost importance, the elimination of the pen knife and lead pencil as the principal sales weapons, and their replacement by *real selling* which gets a dollar for every dollar's worth of merchandise sold. Selling paper or any other merchandise without adequate profit is not selling at all and results eventually in a hurry call for the sheriff.

In the United States today, with our ability to produce, outstripping our ability to consume, the manufacturer who does not sell at a profit will sooner or later join his brethren, who played Santa Claus, in the business graveyard.

Set a standard for your product. Set a price. Tell the consumer your standard and your price, and don't lower either one. It can be done.

## Sale of Keystone Wood Corp. Deferred

[FROM OUR REGULAR CORRESPONDENT]

GLENFIELD, N. Y., March 31, 1930.—The disposal of the property of the Keystone Wood Chemical and Lumber Corporation through public sale will be deferred for a few weeks as the result of the failure of bidders to make an appearance at the scheduled receivership meeting this week. Financial difficulties encountered by the company recently forced it into a receivership early in the fall and the situation was said to have been brought on by the fact that it made too broad a spread of its capital in plant development.

The company was controlled by the Quinn family of Olean and was started by the taking over of about 40,000 acres of hardwood timber, a mammoth mill, and a railroad known as the Glenfield & Western from the Dexter Sulphite Pulp and Paper Company in 1927. When the development was completed the company had the largest plant of its kind in the world with a huge tract of timber to draw from over a long period of years.

The federal court had ruled that the property could not be disposed of for less than $860,000, which resulted in the decision of prospective bidders to wait until the figure was reduced. It is reported that the mortgage bondholders will eventually bid in the property at a price which will take care of their claims. In this event the stockholders and unsecured creditors will not receive anything. The bondholders will carry on the business, according to report.

During the few months that it flourished the company operated 30,000 acres of virgin hardwood land west of Glenfield and 42,000 acres east of the Black River, utilizing 45 miles of railroad lines and spur tracks. The chemical plant was equipped with only the latest in electrically designed machinery and a large force of men were employed steady. The company has similar plants in operation in Pennsylvania.

## Cost Men To Meet at Springfield

George S. May of Chicago, will be the principal speaker at a meeting of the Connecticut Valley Division of the Cost Association of the Paper Industry, which will be held at the Hotel Kimball, Springfield, Mass., April 23, at 6:30 P. M.

The subject which Mr. May will discuss will be "Wage Systems."

Dinner will be served at 6:30 P. M., and those desiring reservations should notify Paul A. Wilks, c/o Strathmore Paper Company, Mittineague, Mass., so that adequate arrangements can be made with the hotel.

## Victoria Paper Mills Co. Golden Anniversary

The Victoria Paper Mills Company, Fulton, N. Y., is this year celebrating its Fiftieth anniversary, the company having been formed in 1880. An attractive folder is being sent out announcing the anniversary under the title of "Fifty Years Experience at Your Service." The PAPER TRADE JOURNAL wishes the Victoria Paper Mills Company many additional years of prosperity and expansion.

# Associations and Industrial Accounting*

By Thomas W. Howard[1]

It seems to me one of our big problems in the uniform cost accounting movement is to sell our own executives. You may find that in the paper industry. Certainly we have found it in many of the manufacturing industries—that accountants are likely to have a clear vision of what they can accomplish if allowed to do it, but the executives are a little faint-hearted and don't measure up to what the accountants would like to have them be.

Now, you probably have heard statements similar to what I am going to give you here many times. Here is what the Chairman of a meeting of manufacturers had to say at a convention here in New York: "Allow me to say, gentlemen, that I believe the real foundation of our trouble lies in the need of a positive and definite knowledge as to the cost, in detail, of our goods, not only of the manufacture but of the selling and distributing." If you have heard that statement once, I presume you may have heard it one hundred times, and I only read it to you because that statement was made here in New York in 1872—fifty-eight years ago.

### Executives Agree But Do Little

Now the point I want to make is this: Why do executives in their conventions repeat, and repeat forever, that statement that we should know something about our costs of manufacture, and of selling? I am going to make an analogy with the electrical industry. At the time that statement was made, what was the condition of the electrical industry? I will put before you in a rather picturesque way by quoting from a statement of the Mayor of Chicago; not the present one because he has other problems; but Carter Harrison, that perennial Mayor of Chicago many years ago. He had this to say in regard to electricity: "As a father of over six hundred thousand people, all looking to me for protection, I say we want electricity, but we do not want death stalking like a horrid monster through our streets." He was addressing himself to the matter of street lighting by electricity in Chicago.

And when Mr. Hurley was Chairman of the Federal Trade Commission he made this statement: "When business was done on a large percentage of profit, questions of accurate cost and operating efficiency were not so important, but in most lines of industry today the large percentage of profit has passed. Manufacturers are working on small margins and must absolutely know what their goods cost. Any unreliable method of arriving at cost of production, with margins of profit so close, must be eliminated." Executives today are fond of making that statement. Why don't they do something more about it?

### Accountants Handicapped

Again turning to the electrical industry, thirteen years ago when Mr. Hurley was making that statement, only 13,000,000 of our poulation lived in electric-lighted houses. I am told that 85,000,000 of our people now live in electric-lighted houses. In the field of electricity, as in other industries, the developments that have been made in the technical field surpass anything we can envision but in the cost accounting field the executives are still talking the same old stuff about knowing something of costs; you accountants are still struggling under handicaps. I am saying that without any definite knowledge of the conditions in your industry, but in many industries that is absolutely true.

What are the favorable signs with respect to this uniform cost accounting movement? I don't know whether it is a favorable sign for the electrical industry that they have me to supervise their accounting activities, or Tom Burke to do it for you, but if an industry will go to the expense of having men on their staffs to assist the accountants in the industry to develop uniformity of accounting, it certainly is a healthy sign.

I am going to read the names of a few industries. You are all familiar with the experience of the printers that have provided such service. I wish to speak of another branch of the graphic arts industries—the electrotyping branch. Five years ago I was asked to address their annual convention at Philadelphia. I was told a few minutes before I went into the hall that not a single electrotype foundry in the United States was known to have a full-fledged cost accounting system. Still they had a cost accounting committee. So I tried to jazz them up with my speech; but when I left the meeting room I didn't have a bit of confidence that they ever would do much about it. Most of you know that a big electrotype foundry employs not more than 20 to 25 people, and putting a cost accounting system in a plant of that size is as big a job as for a much larger factory.

Three years elapsed. One day when I happened to be making a speech in Cleveland it occurred to me to call at the headquarters of the Electrotyper's Association. I went in, expecting to pass the time of day and have a chat with the secretary and come away with the knowledge that I already possessed, viz. that cost accounting for that industry was a hopeless case. But I was surprised when he pointed to a desk and said, "That is our cost accountant's desk. We have developed a cost acounting system that has been put into the plants of thirty of our members in the last eight or nine months, and the movement is on a going basis." That industry is certainly making progress with uniform cost accounting.

Returning to my list of associations which have staff accountants,—the machine tool industry within a year has added an accountant to its staff. That industry has been working around the edges of the subject for some years. They have had manuals that have been in the desk drawers of the executives, but now they are getting the interest which is necessary for success with uniform accounting. The Rubber Association, has a staff accountant. The cotton textile industry has seen the necessity for going at cost work, and they have a cost engineer connected with the Cotton Textile Institute, and they are now doing constructive work.

Those are but a few of the associations, that show they are in earnest with respect to their cost work.

### Peculiar Problems Presented

Cost accounting for any industry presents some peculiar problems. There are those who think that there is not much to this movement for uniform cost accounting, that each company can go its own way, experimenting until it develops a system of cost finding that is satisfactory. We have come to know that approach to the solution of the problem is not satisfactory. Every industry has its peculiar problems and those peculiar problems of accounting can only be solved in a practical way, when that solution is reached by the accountants of the industry itself.

I will take two illustrations from the many rather interesting cases that have come to my attention. Consider coat buttons. How many of you know that coat buttons are made from a nut that comes from South America— the vegetable ivory nut? There are fifteen or twenty concerns in this country which make coat buttons out of vegetable ivory nuts. I had not supposed that the manufacture of buttons introduced numerous



* Presented at convention of the Cost Association of the Paper Industry, New York, Feb. 18, 1930.

[1] Director of Accounting, National Electrical Mfrs. Assn., and late asst. mgr. of the Dept. of Manufacture of the U. S. Chamber of Commerce, Washington, D. C., in special charge of uniform accounting activities.

tecnnical and competitive problems. That is true however, and cost accounting reflects those problems in an interesting way.

For example, those nuts are irregular in shape; some are perfect and some imperfect, and the result is that the yield from a given batch of nuts is uncertain. There is a by-product value to the waste or the scrap, and the problem of by-product accounting comes into the situation in such a way that when it comes to price making, a lack of real cost knowledge may play havoc with the competitive problems of that industry.

Without going into the situation further, I will leave that illustration with you.

A few years ago I had occasion to work with the American Drug Manufacturers' Association in developing its uniform accounting manual. They came to the problem of serum costs. I did not know that there were such complicated production problems in the manufacture of serum. But briefly, a drug manufacturer has a farm. On that farm he maintains horses and cattle of various kinds for the purpose of inoculation, and the development of serum. A horse, for example, is inoculated with the virus of a given disease and allowed to roam the pasture. After a few months some of his blood is drawn, concentrated, and put into the hypodermic syringe that the physician uses in combating dangerous diseases.

Now the accountants in that industry had no sound, practical method of translating the cost of that horse into a particular, small dose of serum. I am not going to attempt to explain the procedure to you, for I don't remember myself what conclusions they reached. But they found when they matched ideas that no two of them had exactly the same practice, and by the matching of ideas they did come to a sound conclusion as to a way to treat that particular problem.

### Work Worthy of Best Brains

That is the interesting thing about uniform cost accounting. The problems of every industry differ. They are worthy of the best brains of the industry, to solve.

Now it may be you would like to know briefly what the electrical industry has in contemplation for me. The electrical industry has developed a manual of accounting procedure which is probably not in very extensive use. The electrical industry has wide ramifications—and the problems of production are numerous, diversified and troublesome.

Tomorrow a letter is going out to the members of my Association telling what I am supposed to do. I will read two or three paragraphs of that letter.

"It is appropriate that you be acquainted at the outset with more important duties of NEMA's[2] Director of Uniform Accounting. Briefly, Mr. Howard will be prepared—

1—To meet when requested, with the executives of a group of companies for a discussion of the need for and the ways of carrying out uniform accounting activities by the group.

2—To assist in the formation of Committees of accountants for groups of companies (not necessarily companies confined to an individual section) whose production technique is substantially uniform and whose needs are such as to make it desirable to develop and use uniform procedure of more detailed character than set forth in the manual of the Standard Accounting and Cost System. He will direct the work of such Committees and act as a liaison agency with NEMA'S Cost Accounting Committee.

3—To correspond with the executives of companies and their accountants either with respect to the individual accounting problems of the companies or to the problems of the groups to which they belong.

In certain directions NEMA cannot be looked to for service in the accounting field. For example: The Director of Uniform Accounting will not be available to install systems for individual member companies; to make audits; to prepare income tax returns or handle claims; nor, in general, to undertake any service that is properly the work of the professional accountant."

[2] Natl. Electrical Mfrs. Assn.

### Executives, Biggest Problem

Now the emphasis I would like to place on those paragraphs is this: that the biggest problem is probably convincing the executive, not only on the merits of uniform accounting in the abstract, but also convincing him that the cost problems of the industry are real and complicated, and that they merit the best attention of the accountants of the industry, and ample financial support from the executives, before they can be solved satisfactorily.

There are certain directions in which I will not be expected to go, as for example in installing systems or making audits. The professional accountant has his place in our accounting work and for that reason our Association, at least, is not going into the field that will conflict with the professional accountant.

That is as far as I need to go in describing what is ahead of us who are in the electrical industry.

As I see the problem of uniform cost accounting in any industry, it is a problem of cooperative endeavor, probably as exacting and difficult, if not more so, than any other cooperative problem of an industry. It combines the technical with what I might call the psychological. It requires the best resources of brain and will to get the desired results.

### Schwab Says "Mutual Education"

I am going to close my remarks by a reference to a statement made by Charles M. Schwab, last October, when he was speaking as president of the American Iron and Steel Institute. He spoke at some length on this matter of uniform cost accounting for the steel industry. In closing his remarks he said this: "I cannot advocate too strongly a consideration at this time of the advantages of uniform cost accounting principles, applied to the steel industry. This Institute recognizes the principle of mutual cooperation for the general good. I would interpret that to include mutual education as well, for it seems to me the more we know about our business, the better able we shall be to promote its welfare and the welfare of the industries to which we are related."

I thought his expression "mutual education" was aptly put. Not only is it a "cooperative" endeavor, but an endeavor through "mutual education."

In closing I should refer more definitely to the Chamber of Commerce of the United States. That organization is a federation of trade associations and of Chambers of Commerce. Its purpose in giving atention to this matter of uniform cost accounting is simply to put at the disposal of a manufacturing industry any experience that other industries have had, that would be of value to the particular industry. There have been many mistakes made in this uniform cost accounting movement, many cases where associations have gone off on the wrong trail; and if the Chamber of Commerce of the United States, by watching the movement in manufacturing industries generally, and making the information available to others, can be of assistance, it wishes to render it.

## Caukenell Bag Corp. Changes Name

RICHMOND, Va., April 7, 1930.—The Caukenell Bag Corporation announces the changing of its name to the James River Paper Products, Inc. As the new name would indicate, the corporation is located in that group of paper and paper board mills on the James River, in and near Richmond, Va.

The corporation also announces the entrance into its official family of Arthur B. Collins, as vice president in charge of sales. Mr. Collins—until recently western sales manager for the Union Bag and Paper Corporation, and long associated with the paper industry—needs no introduction to the trade.

Because of the growing demand for the quality-product that the corporation has been making since its organization, the James River Paper Products, Inc., has substantially increased its capital and is enlarging and improving its manufacturing equipment.

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Specialists in pulp and Paper Mill Knives For Twenty-Five Years

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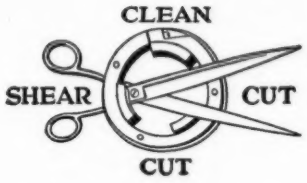


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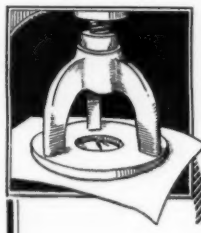

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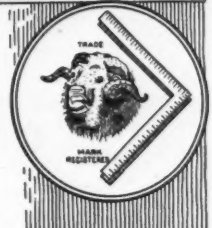
A Trial Felt for Your Machines Will Prove These Facts.



**THE WATERBURY FELT CO., SKANEATELES FALLS, N.Y.**

# IMPORTS OF PAPER AND PAPER STOCK

## NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING APRIL 5, 1930

### SUMMARY

| | |
|---|---|
| Cigarette paper | 1071 cs. |
| Wall paper | 32 bls., 24 cs. |
| Paper hangings | 48 bls., 13 cs. |
| News print | 1375 rolls |
| Printing paper | 236 cs. |
| Wrapping paper | 6 rolls, 63 cs. |
| Packing paper | 48 cs. |
| Filter paper | 51 bls., 38 cs. |
| Drawing paper | 7 cs. |
| Tissue paper | 72 cs. |
| Decalcomania paper | 50 cs. |
| Metal paper | 44 cs. |
| Coated paper | 2 cs. |
| Surface coated paper | 2 cs. |
| Photo paper | 1 cs. |
| Baryta coated paper | 21 crates, 76 cs. |
| Writing paper | 4 cs. |
| Caoutchouc paper | 8 cs. |
| Wafer paper | 8 cs. |
| Transparent greaseproof paper | 67 cs. |
| Parchment paper | 21 bls., 12 cs. |
| Stencil paper and ink | 41 cs. |
| Straw boards | 192 rolls |
| Miscellaneous paper | 38 bls., 394 cs. |

### CIGARETTE PAPER

American Tobacco Co., Collamer, Bordeaux, 200 cs.
S. Y. Crespo, Collamer, St. Nazaire, 2 cs.
De Manduit Paper Corp., Collamer, St. Nazaire, 694 cs.
P. J. Schweitzer, Pr. Harrison, Marseilles, 175 cs.

### WALL PAPER

Irving Trust Co., A. Ballin, Hamburg, 19 cs.
Kensington Wallpaper Co., A. Ballin, Hamburg, 7 bls.
G. W. Sheldon & Co., Berengaria, Southampton, 1 cs.
W. H. Lloyd & Co., Minnekahda, London, 1 ble.
R. F. Downing & Co., Minnekahda, London, 3 bls.
Universal Carloading Co., Dresden, Bremen, 1 cs.
Schmidt & Pritchard, Dresden, Bremen, 19 bls.
F. J. Emmerich, Baltic, Liverpool, 2 bls.
R. F. Downing & Co., Majestic, Southampton, 3 cs.

### PAPER HANGINGS

F. J. Emmerich, Niagara, Havre, 1 cs.
Hudson F'd'g. Co., Niagara, Havre, 1 cs.
W. H. S. Lloyd & Co., Antonia, Liverpool, 26 bls., 8 cs.
W. H. S. Lloyd & Co., Antonia, Liverpool, 22 bls., 3 cs.

### NEWS PRINT

Perkins, Goodwin & Co., Karlsruhe, Bremen, 42 rolls.
F. C. Strpye, Hjelmaren, Kotka, 367 rolls.
Parsons & Whittemore, Inc., A. Ballin, Hamburg, 192 rolls.
Parsons & Whittemore, Inc., Dresden, Bremen, 456 rolls.
Parsons & Whittemore, Inc., Sagoporack, Helsingfors, 161 rolls.
The Times Co., Gripsholm, Gothenburg, 157 rolls.

### PRINTING PAPER

Rectigraph Co., Liberty, Havre, 75 cs.
E. Dietzgen & Co., N. Amsterdam, Rotterdam, 4 cs.
Globe Shipping Co., City of Alton, Rotterdam, 10 cs.
G. W. Sheldon & Co., Berengaria, Southampton, 5 cs.
W. A. Foster & Co., Cameronia, Glasgow, 34 cs.
Japan Paper Co., Minnekahda, London, 21 cs.
Globe Shipping Co., Dresden, Bremen, 1 cs.
C. Steiner, Dresden, Bremen, 57 cs.
Continental Typefounders, Inc., Dresden, Bremen, 19 cs.

### WRAPPING PAPER

Int'l. Germanic Trust Co., A. Ballin, Hamburg, 6 rolls.
———, Majestic, Southampton, 63 cs.

### PACKING PAPER

American Express Co., A. Ballin, Hamburg, 48 cs.

### FILTER PAPER

H. Reeve Angel & Co., Inc., Minnekahda, London, 15 cs.
H. Reeve Angel & Co., Inc., Majestic, Southampton, 51 bls., 23 cs.

### DRAWING PAPER

H. Reeve Angel & Co., Inc., Minnekahda, London, 6 cs.
Keuffel & Esser Co., Alaunia, London, 1 cs.

### TISSUE PAPER

F. C. Strype, Hjelmaren, Helsingfors, 42 cs.
F. C. Strype, C. Biancamano, Genoa, 27 cs.
G. W. Sheldon & Co., American Merchant, London, 3 cs.

### DECALCOMANIA PAPER

L. A. Consmiller, Karlsruhe, Bremen, 3 cs.
C. W. Sellers, Karlsruhe, Bremen, 4 cs.
C. W. Sellers, A. Ballin, Hamburg, 17 cs.
L. A. Consmiller, A. Ballin, Hamburg, 22 cs.
C. W. Sellers, Dresden, Bremen, 3 cs.
F. L. Kramer, Dresden, Bremen, 1 cs.

### METAL PAPER

K. Pauli Corp., Karlsruhe, Bremen, 26 cs.
K. Pauli Corp., Dresden, Bremen, 11 cs.
Globe Shipping Co., N. Amsterdam, Rotterdam, 2 cs.
Scheneckers Inc., A. Ballin, Hamburg, 5 cs.

### COATED PAPER

Pacific National Bank, A. Ballin, Hamburg, 2 cs.

### SURFACE COATED PAPER

Van Oppen & Co., A. Ballin, Hamburg, 1 cs.
Globe Shipping Co., A. Ballin, Hamburg, 1 cs.

### PHOTO PAPER

J. J. Gavin, Berengaria, Southampton, 1 cs.

### BARYTA COATED PAPER

Globe Shipping Co., Dresden, Bremen, 76 cs.
J. H. Schroeder Banking Corp., Dresden, Bremen, 21 crates.

### WRITING PAPER

D. C. Andrews & Co., Majestic, Southampton, 4 cs.

### CAOUTCHOUC PAPER

American Express Co., A. Ballin, Hamburg, 8 cs.

### WAFER PAPER

W. L. Haas, N. Amsterdam, Rotterdam, 8 cs.

### TRANSPARENT GREASEPROOF PAPER

Union Selling Co., City of Alton, Rotterdam, 17 cs.
Central Hanover Bank & Trust Co., A. Ballin, Hamburg, 50 cs.

### PARCHMENT PAPER

Walker, Goulard, Plehn Co., A. Ballin, Hamburg, 21 bls.
W. C. Sullivan, A. Ballin, Hamburg, 12 cs.

### STENCIL PAPER AND INK

Arlac Dry Stencil Co., A. Ballin, Hamburg, 41 cs.

### STRAW BOARDS

Walker, Goulard, Plehn Co., N. Amsterdam, Rotterdam, 192 rolls.

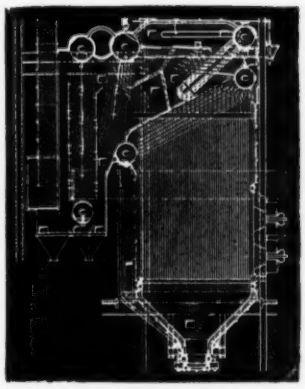
### MISCELLANEOUS PAPER

Keller, Dorian Paper Co., Niagara, Havre, 10 cs.
Hammel Riglander Pennant Corp., Niagara, Havre, 1 cs.
A. L. Diament, Niagara, Havre, 1 cs.
Guibout Freres, Niagara, Havre, 1 cs.
Japan Paper Co., Niagara, Havre, 3 cs.
Standard Products Corp., Niagara, Havre, 160 cs.
Liggett & Meyers Tobacco Co., Niagara, Havre, 28 cs.
Walker, Goulard, Plehn Co., N. Amsterdam, Rotterdam, 15 bls.
Steiner Paper Corp., N. Amsterdam, Rotterdam, 20 cs.
Keuffel & Esser Co., N. Amsterdam, Rotterdam, 3 cs.
Globe Shipping Co., N. Amsterdam, Rotterdam, 4 cs.
E. Dietgen & Co., N. Amsterdam, Rotterdam, 102 cs.
American Express Co., N. Amsterdam, Rotterdam, 7 cs.
Int'l. F'd'g. Co., N. Amsterdam, Rotterdam, 17 cs.
R. Wilson Paper Corp., Cameronia, Glasgow, 15 cs.
D. F. Young & Co., Dresden, Bremen, 7 cs.
International F'd'g. Co., Dresden, Bremen, 3 cs.
The Borregaard Co., Inc., Gripsholm, Gothenburg, 23 bls., 465 rolls.
Keller Dorian Paper Corp., Majestic, Southampton, 12 cs.

### RAGS, BAGGINGS, ETC.

A. W. Fenton, Inc., Liberty, Dunkirk, 29 bls. rags.
V. Galaup, Liberty, Dunkirk, 28 bls. rags.
V. Galuap, Liberty, Havre, 36 bls. rags.
A. W. Fenton, Inc., Liberty, Havre, 15 bls. rags.
E. Mayer, Karlsruhe, Bremen, 10 bls. rags.
National City Bank, Karlsruhe, Bremen, 55 bls. rags.
W. L. Newberry, Karlsruhe, Bremen, 92 bls. rags.
Darmstadt, Scott & Courtney, N. Amsterdam, Rotterdam, 23 bls. thread waste.
E. J. Keller Co., Inc., N. Amsterdam, ———, 78 bls. rags.
Castle & Overton, Inc., City of Alton, Rotterdam, 284 bls. rags.
E. Meyer, City of Alton, Rotterdam, 82 bls. rags; 137 bls. wipers.
French American Banking Corp., City of Alton, Rotterdam, 17 bls. rags.
Equitable Trust Co., City of Alton, Rotterdam, 56 bls. thread waste.
A. C. Loveland, City of Alton, Rotterdam, 21 bls. rags.
E. J. Keller Co., Inc., City of Alton, ———, 68 bls. rags.
Chase National Bank, A. Ballin, Hamburg, 43 bls. rags.
———, A. Aallin, Hamburg, 83 bls. rags.
Castle & Overton, Inc., Exbrook, Alexandria, 56 bls. rags.
P. Berlowitz, Exbrook, Alexandria, 50 bls. rags.
R. M. Gray, Inc., Ilsenstein, Antwerp, 87 bls. flax waste.
———, Ilsenstein, Antwerp, 274 bls. rags.
H. G. Lichtenstein, Collamer, Bordeaux, 85 bls. rags.
A. W. Fenton, Inc., Collamer, Bordeaux, 11 bls. rags.
V. Galaup, Collamer, St. Nazaire, 112 bls. rags.
Castle & Overton, Inc., Collamer, St. Nazaire, 194 bls. rags.
Castle & Overton, Inc., Cameronia, Glasgow, 56 bls. bagging.
Castle & Overton, Inc., United States, Copenhagen, 67 bls. bagging.
———, Ambridge, Antwerp, 38 bls. rags.
Chase National Bank, Heina, Alexandria, 118 bls. rags.
Irving Trust Co., Heina, Alexandria, 141 bls. rags.
H. Burrows, Baltic, Liverpool, 15 bls. rags.
E. Butterworth & Co., Inc., Baltic, Liverpool, 43 bls. paper stock
Castle & Overton, Inc., Incemore, Dundee, 166 bls. paper stock.
Irving Trust Co., Incemore, Dundee, 74 bls. paper stock.
Anglo South American Trust Co., Incemore, Dundee, 100 bls. paper stock.

(Continued on page 74)



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**6 SLOTS—5 SLOTS—4½ SLOTS—4 SLOTS—PER INCH**

**Old Plates Reclosed and Re-cut to Accurate Gauge**
**Rolled Phosphor Bronze and Copper Plates for Rotary Screens**

*Sole Manufacturers of the Union Witham Screen Plate Vat and Fastener*

# Imports of Paper and Paper Stock

(*Continued from page 72*)

Brown Bros. & Co., Incemore, Dundee, 169 bls. paper stock.

OLD ROPE

Int'l. Germanic Trust Co., N. Amsterdam, Rotterdam, 44 coils.
W. Steck & Co., N. Amsterdam, Rotterdam, 95 coils.
Brown Bros. & Co., City of Alton, Rotterdam, 113 coils.
Brown Bros. & Co., A. Ballin, Hamburg, 39 bales.
Brown Bros. & Co., Incemore, London, 89 coils.
W. Steck & Co., Cabo Villano, Naples, 33 bales.

CASEIN

A. Hurst & Co., Niagara, Havre, 333 bags.
A. Hurst & Co., Southern Prince, B. Ayres, 417 bags.
Atterbury Bros., Inc., Southern Prince, B. Ayres, 3334 bags.
Casein Mfg. Co., Sud Americano, B. Ayres, 1085 bags.
Casein Manfg. Co., Vauban, B. Ayres, 1115 bags.
Kalbfleisch Corp., Vauban, B. Ayres, 334 bags.

WOOD PULP

Castle & Overton, Inc., City of Alton, Rotterdam, 160 bls. wood pulp, 31 tons.
Castle & Overton, Inc., A. Ballin, Hamburg, 861 bls. wood pulp, 129 tons.
Lagerloef Trading Co., Hjelmaren, Kotka, 260 bls. wood pulp.
Atterbury Bros., Inc., United States, Oslo, 500 bls. wood pulp, 100 tons.
M. Gottesman & Co., Inc., Sagoporack, Stockholm, 900 bls. sulphite, 152 tons.
Parsons & Whittemore, Inc., Gripsholm, Gothenburg, 120 bls. sulphite.
Perkins Goodwin & Co., Gripsholm, Gothenburg, 26 bls. wood pulp.
Price & Pierce, Ltd., Gripsholm, Gothenburg, 250 bls. wood pulp.
M. Gotesman & Co., Inc., Ida Sebenico, 1680 bls. wood pulp.

WOOD FLOUR

The Burnet Co., N. Amsterdam, Rotterdam, 500 bags.
State Chemical Co., City of Alton, Rotterdam, 400 bls.
Innes Speiden & Co., Gripsholm, Gothenburg, 726 bags.

## PHILADELPHIA IMPORTS

WEEK ENDING APRIL 5, 1930

Castle & Overton, Inc., Liberty, Dunkirk, 36 bls. rags.
Union Waste Co., Liberty, Dunkirk, 150 bls. rags.
D. I. Murphy, Liberty, Dunkirk, 98 bls. rags.
Darmstadt, Scott & Courtney, Liberty, Dunkirk, 238 bls. rags.
J. A. Steer & Co., Liberty, Dunkirk, 125 bls. rags.
J. A. Steer & Co., Liberty, Havre, 56 bls. rags.
A. Hrust & Co., Liberty, Havre, 218 bls. rags.
D. I. Murphy, Liberty, Havre, 232 bls. rags.
G. W. Millar & Co., Liberty, Havre, 125 bls. rags.
Stora Kopperberg Corp., Hjelmaren, Stockholm, 475 bls. wood pulp.
Lagerloef Trading Co., Hjelmaren, Kotka, 3662 bls. sulphate; 15072 bls. sulphite.
S. Birkenstein & Son, Exbrook, Alexandria, 50 bls. rags.
Phila. National Bank, Collamer, Bordeaux, 62 bls. rags.
A. Hurst & Co., Collamer, Bordeaux, 141 bls. rags.
Castle & Overton, Inc., Collamer, Bordeaux, 320 bls. rags.
Robert Blank, Collamer, Bordeaux, 24 bls. rags.
Katzenstein & Kene, Inc., Collamer, Bordeaux, 250 bls. rags.
Katzenstein & Keene, Inc., Collamer, St. Nazaire, 266 bls. rags.
A. Hurst & Co., Collamer, St. Nazaire, 42 bls. rags.
P. Berlowitz, Collamer, St. Nazaire, 83 bls. rags.
Castle & Overton, Inc., Collamer, St. Nazaire, 243 bls. rags.
D. I. Murphy, Collamer, St. Nazaire, 348 bls. rags.
E. J. Keller Co., Inc., Collamer, ———, 230 bls. rags.
Lagerloef Trading Co., Sagoporack, Hango, 7918 bls. sulphate, 1321 tons.
———, Ida Trieste, 1441 bls. rags.
Irving Trust Co., Cabo Villano, Genoa, 18 bls. cotton waste.

## BALTIMORE IMPORTS

WEEK ENDING APRIL 5, 1930

Congoleum Nairn Co., Ambridge, Rotterdam, 2283 bls. rags; 114 bls. bagging.
Maryland Waste Co., Ambridge, Rotterdam, 16 bls. rags.
Congoleum Nairn Co., Collamer, Bordeaux, 828 bls. rags.
Congoleum Nairn Co., Collamer, St. Nazaire, 106 bls. rags.
National City Bank, Maine, London, 269 bls. rags.
———, Maine, London, 169 bls. waste paper.
Bulkley Dunton & Co., Georgia, ———, 400 bls. wood pulp.
Bulkley Dunton & Co., Tomalva, ———, 125 bls. wood pulp.
Bulkley Dunton & Co., Westpool, ———, 2500 bls. wood pulp.

## NORFOLK IMPORTS

WEEK ENDING APRIL 5, 1930

E. Butterworth & Co., Inc., Ambridge, Antwerp, 104 bls. bagging.
Darmstadt, Scott & Courtney, Ambridge, Antwerp, 156 bls. bagging.
Katzenstein & Keene, Inc., Ambridge, Antwerp, 101 bls. bagging.
G. W. Sheldon & Co., Maine, London, 4 cs. tissue paper.

## BOSTON IMPORTS

WEEK ENDING APRIL 5, 1930

Crowford, Keen Co., Castilian Prince, B. Ayres, 834 bags casein, 50040 ks.
1st Nat'l. Bank of Boston, Castilian Prince, B. Ayres, 1359 bags casein, 75113 ks.
Lagerloef Trading Co., Sagoporack, Helsingfors, 320 bls. sulphite, 52 tons.
Stora Kopperberg Corp., Sagoporack, Stockholm, 1500 bls. uslphate, 304 tons.
Pagel, Norton & Co., Inc., Sagoporack, Stockholm, 100 bls. sulphite, 101 tons.
———, Sagoporack, Stockhold, 240 bls. sulphite, 30 tons.
Bulkley, Dunton & Co., Sagoporack, ———, 250 bls. wood pulp, 50 tons.
1st Nat'l. Bank of Boston, Maine, Lonton, 61 bls. rags.
G. M. Graves Co., Maine, London, 162 bls. waste paper.
Brown Bros. & Co., Maine, London, 82 bls. waste paper.
J. B. Moors & Co., Maine, London, 323 bls. rags.
Baring Bros. & Co., Maine, London, 279 bls. rags.
Crocker, Burbank Co., Maine, London, 624 bls. rags.

## S. D. Warren Co. Reports Larger Earnings

Boston, Mass., April 7, 1930.—The S. D. Warren Company, large paper manufacturing company, a portion of whose capital stock was sold to the public for the first time during last year, reports for year ended December 31, 1929, net profit after all charges, including estimated federal taxes, of $973,026, equal after one quarter's dividends on preferred stocks since retired to $9.18 per share on 101,415 shares of common stock.

The 1929 earnings compare with $802,380 in 1928, $953,354 in 1927 and $955,682 in 1926. Exact per-share comparison of profits is not possible, for early last year preferred A and B stocks were retired from proceeds of sale of 30,000 shares of new common stock, and old common was split five for one.

Profits were slightly larger in 1929 than in the two years immediately preceding, but net sales showed a larger gain at $11,416,493, against $10,256,757 in 1928 and $10,811,858 in 1927. Prices were lower in 1929, so the increase in tonnage was larger than that in dollars.

Contrary to the experience of most industrial companies, S. D. Warren Company has felt the results of the stock market reaction but very slightly. Both sales and profits in the first two months of this year were slightly ahead of those in the corresponding period last year. At present the company is sold ahead for about its normal length of time.

On December 31, 1929, the company had current assets of $4,467,829 and current liabilities of $602,025, a ratio of 7 to 1.

## Champion Coated Addition Nearly Completed

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 7, 1930.—Construction of the new Champion Coated Paper Company's boiler house, office building and machine shop is nearing completion in Hamilton, it was announced today by the contractors who obtained a building permit for the construction work from the municipal officials. According to estimates on the permit, the work will cost $80,000.

The new boiler house is 58 by 74 feet in dimensions and the combined office building and machine shop is 36 by 38 feet. The new boiler house is one of the most modern in the valley.

The Champion Coated Paper Company has kept uniformly busy in all departments during the period of depression, the Hamilton plant being one of the particularly bright spots. There has been no letting off of employees, though the company found a larger list of applicants for positions on its rolls than ever before.

## Awards for Government Paper

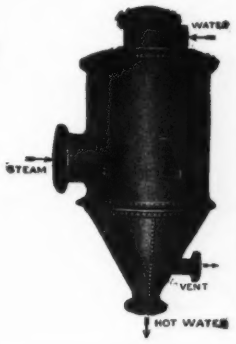
Washington, D. C., April 9, 1930.—Barton, Duer & Koch Paper Company has been awarded the contract for furnishing the Government Printing Office with 5,000 sheets of 22 x 28 red railroad board at $32.50 per thousand sheets, bids for which were received on March 21.

The Virginia Paper Company will furnish 3,800 sheets of 20 x 25 blue paper, gummed on one side at $12.42 per thousand, bids for which were received on the same date.

# S & K MULTI-SPRAY HEATERS

**condense waste steam and produce hot wash water**

**14 standard sizes, 2" to 36". Water capacities 1000 G.P.H. to 140,000 G.P.H.**

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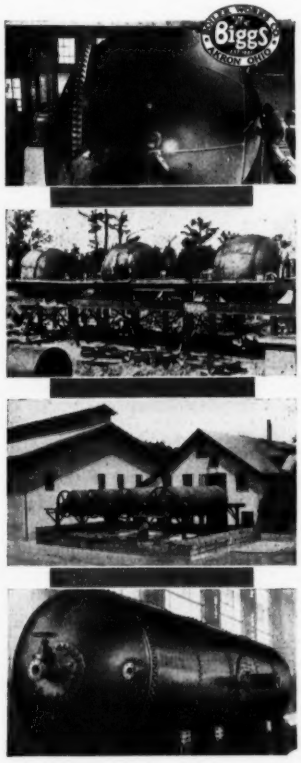


Top—Biggs Welded Rotary Digester
Second—Biggs Riveted Rotary Digesters
Third—Biggs Standard Cylinder Rotary Bleaching Boilers
Bottom—Biggs Tumbling

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**Welded Globe Rotary Digesters**
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**Welded or Riveted Steel Plate Construction of Every Description**

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**Akron, Ohio**
**New York Detroit Chicago**

## *Two Birds With One Stone*

**Lacing, *Mechanically Correct:*** Each hammer-clinched steel tooth of Alligator Steel Belt Lacing holds its width of belt in a powerful compression grip like a tiny vise.

# ALLIGATOR STEEL BELT LACING

THE great surplus of strength of this smooth hinged joint gives length and reliability of service, unexcelled, in any type of belt and practically any service.

The sectional steel hinge pin (patented) absorbs friction in the joint.

**Belt End Protection *Thrown In*** Sealing the belt end with the powerful compression grip prevents internal friction and ply separation at the joint. Alligator Steel Belt Lacing prevents belt end troubles and *increases the life of belting.*

Kill two birds with one stone!

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## NEW ROGERS TYPE R
**SECTIONAL WHEEL KNIFE GRINDER**

**Widely used for grinding paper & Chipper Knives**
***Write for bulletin***

**FACILITATES Type GRINDING 14" Segment COOLER WHEEL FASTER & "R"**

**SAMUEL C. ROGERS & CO.**
**222 Dutton Ave. Buffalo, N. Y.**

## The Leshner Paper Stock Co.

wishes to announce that a change has been made in the corporate name to

## THE LESHNER CORPORATION

and request that all communication hereafter be addressed accordingly.
There is no change in directorate nor capitalization.

HAMILTON, OHIO

## New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, April 9, 1930.

Trading in the local paper market was rather light during the past week. Unsettled prices in several branches of the industry are apparently responsible for the prevailing situation, as distributors are inclined to hold back their orders awaiting a definite trend in quotations. Sales forces of the leading paper organizations are conducting a strenuous campaign for orders which should bear fruit in the near futuere.

Demand for news print is moderately active although consumption has fallen off slightly. According to information gathered by the News Print Service Bureau the average production in the United States and Canada was approximately 71 per cent of total capacity in the week ended March 22. The news print price situation remains unchanged.

The position of the paper board market is practically unchanged. Box board production is being maintained at about 70 per cent of capacity. Prices remain unsatisfactory. The fine paper market continues to exhibit steadiness with prices holding to schedule, in most instances. The coarse paper market is displaying an irregular trend. Southern kraft prices are still weak.

### Mechanical Pulp

Steadiness prevails in the ground wood market. Contract shipments are going forward at a normal pace for the time of year. Production at home and abroad is being maintained in sufficient volume to take care of current requirements. Prices are generally holding to previously quoted levels and there is little talk of concessions around.

### Chemical Pulp

Most of the business transacted in the chemical pulp market during the past week was along routine lines. The kraft pulp situation continues unsatisfactory and quotations are weak. Bleached soda pulp is in a strong position with production just sufficiently ahead of consumption to ensure stable prices. Quotations on other grades are practically unchanged.

### Old Rope and Bagging

No radical changes were reported in the old rope market. Demand for both domestic and imported old manila rope was quietened down somewhat. Mixed strings are moving rather slowly at present. Prices are fairly steady. The bagging market was spotty. Gunny was in fairly good request but little interest was displayed in scrap and roofing bagging.

### Rags

Conditions in the domestic rag market are fairly satisfactory. Cotton cuttings are in seasonal request. Some improvment was noticed in the demand for roofing rags. Mixed rags are going forward in normal volume. Domestic rag prices are generally holding to recently reported levels. Foreign rags are said to be moving more briskly since the recent decline in prices.

### Waste Paper

Board mills are showing little interest in the lower grades of paper stock at present. Dealers anticipate more lively trading in the near future, however, as stocks in the hands of the board mills are reported to be below normal. The better grades of paper stock are exhibiting a strong undertone, especially soft white shavings, which are in excellent request at present.

### Twine

Business in the twine market is about normal for the season. Inquiries for future needs are fairly numerous. Shipments are going forward in satisfactory volume. While competition is decidedly spirited for desirable orders, prices are generally being maintained at previously quoted levels, and shading is infrequent.

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### Bertrand Hopper Leaves Western Tablet Co.

KALAMAZOO, Mich., April 7, 1930.—It is announced that Bertrand Hopper has sold his stock in the Western Tablet and Stationery Corporation, of which the Kalamazoo Stationery Company of this city is a part, to a Syndicate of New York Bankers affiliated with the Chase Bank, and will retire from active participation in the management of the company.

Mr. Hopper has taken an office in the new Bank of Kalamazoo Building and it is understood that his time when not traveling with his family and playing golf will be devoted to the interests of the Hopper Paper Company, of Taylorville, Ill.

Bertrand Hopper came to Kalamazoo in association with H. F. Dayton, of Quincy, Ill., twenty-three years ago and purchased the control of the Kalamazoo Stationery Company. At that time they were employing fifty people.

Mr. Hopper with Mr. Dayton organized the Western Tablet and Stationery Company, of St. Joseph, Mo., now one of the largest units in the Western Tablet and Stationery Corporation. He also organized the Hopper Paper Company, Richmond, Va., the Northwest Tablet Company, Minneapolis, Minn., and purchased the South Tablet Company, Holyoke, Mass. These companies are now owned by the Western Tablet and Stationery Corporation

Mr. Hopper is very proud of the success of the Hopper Paper Company, Taylorville, Ill., because about five years ago when the Hopper Paper Company was in financial difficulties, he personally paid all of the creditors in full at a cost of $300,000 to himself and since that time the mill has developed a very enviable reputation for the manufacture of high grade papers and the mill is now considered to be one of the "show mills" of the country.

---

### C. P. Tatum Joins Martin Cantine Co.

C. P. Tatum, of Columbus, Ohio, has joined the sales organization of the Martin Cantine Company, manufacturers of surface coated papers, located at Saugerties, N. Y. Mr. Tatum will represent the Cantine company in New England, New York State, outside of the Metropolitan area, and in the mid western States.

Mr. Tatum has been connected for the past few years with the Nashua Gummed and Coated Paper Company, and has also had a number of years experience in the printing field.

Mr. Tatum succeeds George E. Doyle, who recently resigned to accept a position as sales manager of the R. H. Thompson Company, in Buffalo, N. Y. The R. H. Thompson Company, are distributors of Cantine's coated papers in western New York State.

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• • •

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# Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, April 9, 1930.

BLANC FIXE.—Steadiness prevails in the blanc fixe market. Demand for both the pulp and the powder is seasonal. Prices are unchanged. The pulp is quoted at from $42.50 to $45.00 per ton, in bulk, while the powder is selling at from 3¾ cents to 4½ cents a pound, in barrels, at works.

BLEACHING POWDER.—The position of the bleaching powder market is practically unchanged. The prevailing demand is moderately active. Prices are generally holding to schedule. Bleaching powder is quoted at from $2.00 to $2.35 per 100 pounds, in drums, at works.

CASEIN.—Further weakness developed in the casein market. Domestic casein declined to from 13½ cents to 15¼ cents a pound, while Argentine standard ground is now seling at 13½ cents, and finely ground at 15¼ cents a pound, all in bags, car lot quantities.

CAUSTIC SODA.—Demand for caustic soda was persistent. The contract movement was normal. Prices remain unchanged. Solid caustic soda is quoted at from $2.90 to $2.95, while the flake and the ground are selling at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—The china clay market is exhibiting a strong undertone. Prices are holding to schedule without difficulty. Imported china clay is quoted at from $15 to $25 per ton, ship side, while domestic paper making clay is selling at from $8 to $13 per ton, at mine.

CHLORINE.—Some improvement was noticed in the chlorine market. While demand was only moderately active, inquiries for future needs are being received in good volume. Prices remain unchanged. Chlorine is quoted at $2.50 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—The rosin market was irregular and prices declined slightly. The grades of gum rosin used in the paper mills are now quoted at from $7.85 to $8.50 per 280 pounds, in barrels, on dock. Wood rosin is selling at from $6.40 to $6.75 per 280 pounds, in barrels, at southern shipping points.

SALT CAKE.—Offerings of salt cake continue decidedly limited and the market is in a strong position. Demand is persistent and prices are steady to firm. Salt cake is quoted at from $22 to $25 per ton, while chrome salt cake is selling at from $20 to $21 per ton, in bulk, at works.

SODA ASH.—Supplies of soda ash are moving into consumption in satisfactory volume for the time of year. Prices are generally holding to previously quoted levels. Contract quotations of soda ash, in car lots, at works, are as follows: in bags, $1.32½; and in barrels, $1.55.

STARCH.—The starch market is in a sound position. Shipments against contract are moving to the mills in good volume. No further price changes have been reported and the outlook is promising. Special paper making starch is quoted at $3.72 per 100 pounds, in bags, and at $3.99 in barrels.

SULPHATE OF ALUMINA.—Paper mill demand for sulphate of alumina is fairly persistent. The contract movement is well up to average. Prices remain unaltered. Commercial grades are quoted at from $1.40 to $1.55 and iron free at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—Conditions in the sulphur market are satisfactory. Sulphur is still quoted at $18 per ton, at mine, on orders of 1,000 tons, or over, on yearly contracts, and at $20 per ton for any smaller quantity over the same period. On spot and near by car loads, the quotation is $21 per ton.

TALC.—Most of the business transacted in the talc market during the past week was along routine lines. Prices are holding to schedule. Domestic talc is quoted at from $16 to $18 per ton, in bulk, at eastern mines, while imported talc is selling at from $18 to $20 per ton, in bags, ship side.

# Market Quotations

## Paper
(F. o. b. Mill)

| | | |
|---|---|---|
| Ledgers | 11.00 | @38.00 |
| Bonds | 9.00 | @53.25 |
| **Writings—** | | |
| Extra Superfine | 14.00 | @32.00 |
| Superfine | 14.00 | @32.00 |
| Tub sized | 10.00 | @15.00 |
| Engine sized | 8.00 | @11.00 |
| **Book, Cased—** | | |
| S. & S. C. | 6.00 @ | 7.50 |
| M. F. | 5.75 @ | 7.00 |
| Coated and Enamel | 7.50 | @12.00 |
| Lithograph | 7.50 | @12.00 |
| **Tissues—Per Ream—** | | |
| White No. 1 | .75 @ | 1.00 |
| Anti-Tarnish | 1.35 @ | 1.90 |
| Colored | 1.00 @ | 2.00 |
| White No. 2 | .75 @ | .80 |
| Kraft | 1.00 @ | 1.10 |
| Manila | .75 @ | .80 |
| **Kraft—** | | |
| No. 1 Domestic | 6.00 @ | 6.50 |
| No. 2 Domestic | 3.50 @ | 5.00 |
| Southern | 3.00 @ | 4.50 |
| Imported | 6.50 @ | 7.00 |
| **Manila—** | | |
| No. 1 Jute | 9.00 @ | 9.25 |
| No. 2 Jute | 7.75 @ | 8.50 |
| No. 1 Wood | 4.75 @ | 5.25 |
| No. 2 Wood | 4.00 @ | 4.50 |
| Butchers | 3.75 @ | 4.25 |
| **Fibre Papers—** | | |
| No. 1 Fibre | 5.00 @ | 5.50 |
| No. 2 Fibre | 4.75 @ | 5.25 |
| Common Bogus | 2.75 @ | 3.00 |
| Screenings | 3.00 @ | 3.25 |
| Card Middles | 4.00 @ | 5.00 |
| **Glassine—** | | |
| Bleached, basis 25 lbs. | 13.00 | @16.00 |
| Bleached, basis 20 lbs. | 15.00 | @16.00 |

(Delivered New York)

| | | |
|---|---|---|
| **News, per ton—** | | |
| Rolls, contract | 62.00 @ | — |
| Rolls, spot | 62.00 @ | — |
| Sheets | 67.00 @ | — |
| Side Runs | 47.00 | @52.00 |
| **Boards—per ton—** | | |
| News | 37.50 @ | — |
| Straw | 52.50 @ | — |
| Chip | 35.00 @ | — |
| Binders' Boards | 65.00 | @70.00 |
| Wood Pulp | 90.00 | @95.00 |
| 65 Test Jute Liner | 45.00 | @47.50 |
| 85 Test Jute Liner | 50.00 | @55.00 |
| Sgl. Mla. Ll. Chip | 47.50 | @50.00 |

## Mechanical Pulp
(On Dock)

| | | |
|---|---|---|
| **No. 1 Imported—** | | |
| Moist | 30.00 | @32.00 |
| Dry | 32.00 | @34.00 |

(F. o. b. Mill)

| | | |
|---|---|---|
| No. 1 Domestic | 28.00 | @32.00 |
| Screenings | 15.00 | @20.00 |

## Chemical Pulp
(On Dock, Atlantic Ports)

| | | |
|---|---|---|
| **Sulphite (Imported)—** | | |
| Bleached | 3.25 @ | 4.25 |
| Easy Bleaching | 2.80 @ | 3.05 |
| No. 1 strong unbleached | 2.65 @ | 2.75 |
| Mitscherlich unbleached | 2.70 @ | 3.00 |
| No. 2 strong unbleached | 2.40 @ | 2.60 |
| No. 1 Kraft | 2.15 @ | 2.30 |
| No. 2 Kraft | 2.00 @ | 2.15 |
| **Sulphate—** | | |
| Bleached | 3.40 @ | 3.85 |

(F. o. b. Pulp Mill)

| | | |
|---|---|---|
| **Sulphite (Domestic)—** | | |
| Bleached | 3.20 @ | 4.75 |
| Easy Bleaching Sulphite | 2.65 @ | 3.00 |
| News Sulphite | 2.50 @ | 2.70 |
| Mitscherlich | 3.00 @ | 3.25 |
| Kraft (Domestic) | 2.10 @ | 3.30 |
| Soda Bleached | 3.10 @ | 3.25 |
| **Sulphate Screenings—** | | |
| Coarse | .75 @ | .95 |
| Refined | 1.65 @ | 1.85 |

## Domestic Rags
New Rags
(Prices to Mill f. o. b. N. Y.)

| | | |
|---|---|---|
| **Shirt Cuttings—** | | |
| New White, No. 1 | 9.25 @ | 9.75 |
| New White, No. 2 | 7.00 @ | 7.50 |
| Silesias No. 1 | 7.50 @ | 8.00 |
| New Unbleached | 10.50 | @11.00 |
| New Blue Prints | 5.25 @ | 5.50 |
| New Soft Blacks | 5.25 @ | 5.75 |
| Blue Overall | 7.25 @ | 7.75 |
| Washables | 4.75 @ | 5.25 |
| Fancy | 5.50 @ | 6.00 |
| Mixed Khaki Cuttings | 4.75 @ | 5.25 |
| Pink Corset Cuttings | 8.00 @ | 8.50 |
| O. D. Khaki Cuttings | 5.15 @ | 5.75 |
| Men's Corduroy | 3.75 @ | 4.25 |
| New Mixed Blacks | 3.50 @ | 3.75 |

Old Rags

| | | |
|---|---|---|
| **White, No. 1—** | | |
| Repacked | 5.50 @ | 6.00 |
| Miscellaneous | 4.50 @ | 5.00 |
| **White, No. 2—** | | |
| Repacked | 3.00 @ | 3.50 |
| Miscellaneous | 2.50 @ | 2.75 |
| St. Soiled, White | 2.00 @ | 2.15 |
| **Thirds and Blues—** | | |
| Repacked | 2.25 @ | 2.50 |
| Miscellaneous | 1.75 @ | 2.00 |
| Black Stockings | 3.25 @ | 3.75 |
| **Roofing Rags—** | | |
| Cloth Strippings | 1.70 @ | 1.80 |
| No. 1 | 1.70 @ | 1.80 |
| No. 2 | 1.50 @ | 1.60 |
| No. 3 | 1.30 @ | 1.40 |
| No. 4 | 1.25 @ | 1.35 |
| No. 5A | .90 @ | 1.05 |

## Foreign Rags
New Rags

| | | |
|---|---|---|
| New Dark Cuttings | 2.50 @ | 3.00 |
| New Mixed Cuttings | 2.75 @ | 3.25 |
| New Light Silesias | 7.00 @ | 7.50 |
| Light Flannelettes | 7.50 @ | 8.00 |
| Unbleached Cuttings | 10.00 | @11.00 |
| New White Cuttings | 10.00 | @10.50 |
| New Light Oxfords | 7.00 @ | 7.50 |
| New Light Prints | 5.50 @ | 6.50 |

Old Rags

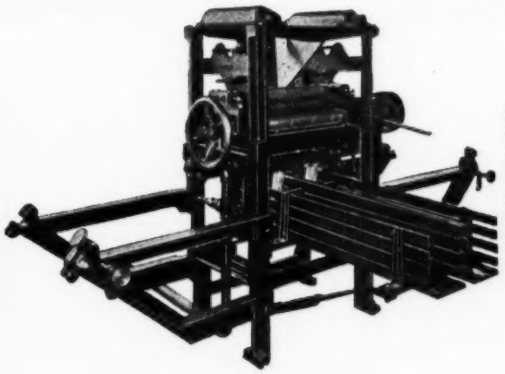
| | | |
|---|---|---|
| No. 1 White Linens | 7.25 @ | 8.00 |
| No. 2 White Linens | 5.75 @ | 6.75 |
| No. 3 White Linens | 4.75 @ | 5.25 |
| No. 4 White Linens | 3.00 @ | 3.50 |
| No. 1 White Cotton | 5.50 @ | 6.50 |
| No. 2 White Cotton | 2.75 @ | 3.75 |
| No. 3 White Cotton | 3.00 @ | 4.00 |
| No. 4 White Cotton | 1.95 @ | 2.15 |
| Extra Light Prints | 1.95 @ | 2.15 |
| Ord. Light Prints | 2.25 @ | 2.50 |
| Med. Light Prints | 1.95 @ | 2.10 |
| Dutch Blue Cottons | 2.15 @ | 2.30 |
| French Blue Linens | 2.65 @ | 2.75 |
| German Blue Linens | 2.30 @ | 2.50 |
| German Blue Cottons | 2.00 @ | 2.10 |
| Checks and Blues | 1.85 @ | 2.00 |
| Lindsay Garments | 1.85 @ | 1.95 |
| Dark Cottons | 1.45 @ | 1.50 |
| Old Shopperies | 1.40 @ | 1.45 |
| New Shopperies | 1.35 @ | 1.40 |
| French Blues | 2.00 @ | 2.10 |

## Old Rope and Bagging
(Prices to Mill f. o. b. N. Y.)

| | | |
|---|---|---|
| **Gunny No. 1—** | | |
| Foreign | 1.50 @ | 1.60 |
| Domestic | 1.60 @ | 1.70 |
| Wool Tares, light | 1.60 @ | 1.65 |
| Wool Tares, Heavy | 1.60 @ | 1.70 |
| Bright Bagging | 1.60 @ | 1.70 |
| Small Mixed Rope | 1.25 @ | 1.40 |
| **Manila Rope—** | | |
| Foreign | 4.25 @ | 4.40 |
| Domestic | 4.25 @ | 4.50 |
| New Burlap Cut | 2.75 @ | 3.00 |
| **Hessian Jute Threads—** | | |
| Foreign | 3.50 @ | 4.00 |
| Domestic | 3.25 @ | 3.50 |

## Old Waste Papers
(F. o. b. New York)

| | | |
|---|---|---|
| **Shavings—** | | |
| Hard, white, No. 1 | 3.00 @ | 3.25 |
| Hard, white, No. 2 | 2.40 @ | 2.55 |
| Soft, white, No. 1 | 2.55 @ | 2.65 |
| White envelope cuttings | 2.90 @ | 3.10 |
| **Flat Stock—** | | |
| Stitchless | 1.45 @ | 1.55 |
| Overissue Mag. | 1.45 @ | 1.55 |
| Solid Flat Book | 1.40 @ | 1.50 |
| Crumpled No. 1 | 1.00 @ | 1.10 |
| Solid Book Ledger | 2.00 @ | 2.10 |
| Ledger Stock | 1.40 @ | 1.50 |
| New B. B. Chips | .45 @ | .55 |
| **Manilas—** | | |
| New Env. Cut | 2.40 @ | 2.60 |
| New Cuttings | 1.50 @ | 1.75 |
| Extra No. 1 old | 1.25 @ | 1.35 |
| Print | .60 @ | .65 |
| Container | .40 @ | .50 |
| Bogus Wrapper | .60 @ | .65 |
| **Old Kraft Machine Compressed bales** | 1.65 @ | 1.75 |
| **News—** | | |
| No. 1 White News | 1.65 @ | 1.75 |
| Strictly Overissue | .55 @ | .65 |
| Strictly Folded | .45 @ | .55 |
| No. 1 Mixed Paper | .25 @ | .30 |
| Common Paper | .15 @ | .20 |



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Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of PAPER TRADE JOURNAL published weekly at East Stroudsburg, Pa., for April 1, 1930—State of New York, County of New York, ss.: Before me, a Notary Public in and for the State and county aforesaid, personally appeared John Banninga, who, having been duly sworn according to law, deposes and says that he is the secretary of the PAPER TRADE JOURNAL and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit: 1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, George S. Macdonald, 10 East 39th st., New York, N. Y. Editor, H. J. Berger, 10 East 39th st., New York, N. Y. Managing Editor, H. J. Berger, 10 East 39th st., New York, N. Y. Business Manager, George S. Macdonald, 10 East 39th st., New York, N. Y. 2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) Lockwood Trade Journal Co., Inc., 10 East 39th st., New York, N. Y. Stockholders: Geo. S. Macdonald, 10 East 39th st., New York, N. Y. 3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.): None. 4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him. 5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is .....(This information is required from daily publications only.)

JOHN BANNINGA, Signature of Secretary.

Sworn to and subscribed before me this 31st day of March, 1930.

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### Twines
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Cotton— | | | |
| No. 1 | .39 | @ | .40 |
| No. 2 | .37 | @ | .38 |
| No. 3 | .36 | @ | .37 |
| B. C., 18 basis | .38 | @ | .40 |
| A. B. Italian, 18 basis | .48 | @ | .53 |
| Finished Jute— | | | |
| Dark 18 basis | .24 | @ | .25 |
| Light 18 basis | .27 | @ | .28 |
| Jute Wrapping, 3-6 Ply— | | | |
| No. 1 | .19 | @ | .21 |
| No. 2 | .18 | @ | .20 |
| Tube Rope— | | | |
| 4-ply and larger | .16 | @ | .17 |
| Fine Tube Yarn— | | | |
| 5-ply and larger | .21 | @ | .25 |
| 4-ply | .25 | @ | .29 |
| 3-ply | .28 | @ | .32 |
| Unfinished India— | | | |
| Basis | .13 | @ | .14 |
| Paper Makers Twine | | | |
| Balls | .11 | @ | .12 |
| Box Twine, 2-3 ply | .15 | @ | .17 |
| Jute Rope | .17 | @ | .19 |
| Amer. Hemp, 6 | .29 | @ | .31 |
| Sisal Hay Rope— | | | |
| No. 1 Basis | .16 | @ | .18 |
| No. 2 Basis | .14 | @ | .16 |
| Sisal Lath Yarn— | | | |
| No. 1 | .14 | @ | .16 |
| No. 2 | .12 | @ | .14 |
| Manila Rope | .22 | @ | .24 |

## CHICAGO

### Paper
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Rag Bond | .30 | @ | .53¼ |
| Water Marked Sulphite Bond | .09 | @ | .12 |
| Sulphite Bond | .06¾ | @ | .11 |
| Superfine writing | .18 | @ | .24 |
| No. 1 fine writing | .14 | @ | .18 |
| No. 2 fine writing | .12 | @ | .14 |
| No. 3 fine writing | .08½ | @ | .12 |
| No. 1 M. F. Book | .06½ | @ | .07¾ |
| No. 2 M. F. Book | .05¼ | @ | .06¼ |
| No. 1 S.&S.C. Book | .06¾ | @ | .07¾ |
| No. 2 S.&S.C. Book | .05¾ | @ | .06½ |
| Coated Book | .07½ | @ | .12 |
| Coated Label | .07½ | @ | .10 |
| No. 1 Manila | .04¼ | @ | .05¾ |
| No. 1 Fibre | .04¾ | @ | .05¼ |
| No. 2 Manila | .04¼ | @ | .04¾ |
| Butcher's Manila | .04 | @ | .04½ |
| No. 1 Kraft | .06¼ | @ | .06½ |
| Southern Kraft | 4.25 | @ | 4.50 |
| No. 2 Kraft | .04 | @ | .04¼ |
| Wood Tag Boards | .04¼ | @ | .06¼ |
| Sulphite Screenings | .03 | @ | .03¼ |
| Manila Tissue— | | | |
| 24x36 Sheet | .07 | @ | .07¼ |
| White Tissue— | | | |
| 20x30 Sheet | .07¼ | @ | .07½ |
| (Delivered Central Territory) | | | |
| News, per ton— | | | |
| Rolls, contract | 62.00 | @ | — |
| Sheets | 67.00 | @ | — |
| Boards, per ton— | | | |
| Plain Chip | 37.50 | @ | 42.50 |
| Solid News | 47.50 | @ | — |
| Solid News | 40.00 | @ | 45.00 |
| Manila Lined Chip | 50.00 | @ | 55.00 |
| Container Lined— | | | |
| 85 Test | 65.00 | @ | 70.00 |
| 100 Test | 70.00 | @ | — |

### Old Papers
(F. o. b. Chicago)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White | 2.35 | @ | 2.40 |
| White Env. Cuttings | 2.60 | @ | 2.65 |
| No. 1 Soft Shavings | 2.10 | @ | 2.15 |
| No. 1 Mixed | .60 | @ | .70 |
| No. 2 Mixed | .50 | @ | .60 |
| Ledger & Writings | 1.25 | @ | 1.35 |
| Solid Books | 1.05 | @ | 1.10 |
| Blanks | 1.60 | @ | 1.65 |
| Krafts | 1.65 | @ | 1.75 |
| New Kraft Cuts | 2.15 | @ | 2.25 |
| Manila Envelope Cuttings | 1.75 | @ | 1.80 |
| Ex. No. 1 Manila | 1.30 | @ | 1.45 |
| Print Manila | .60 | @ | .70 |
| Folded News (overissue | .50 | @ | .60 |
| Old Newspapers— | | | |
| No. 1 | .60 | @ | .65 |
| No. 2 | .50 | @ | .55 |
| Mixed Papers— | | | |
| No. 1 | .45 | @ | .50 |
| Rooting Stocks— | | | |
| (F. o. b. Chicago, net cash) | | | |
| No. 1 | 30.00 | @ | — |
| No. 2 | 28.00 | @ | — |

## PHILADELPHIA

### Paper
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Bonds | .05 | @ | .40 |
| Ledgers | .08 | @ | .40 |
| Writings— | | | |
| Superfine | .12½ | @ | .18 |
| Extra fine | .18 | @ | .22 |
| Fine | .17 | @ | .26 |
| Fine, No. 2 | .15 | @ | .25 |
| Fine, No. 3 | .09 | @ | .20 |
| Book, M. F. | .05 | @ | .07 |
| Book, S. S. & C. | .05 | @ | .07½ |
| Book, Coated | .09 | @ | .16 |
| Coated Lithograph | .07 | @ | .11 |
| Label | .07 | @ | .11 |
| No. 1 Jute Manila | .07 | @ | .09 |
| Manila Sul., No. 1 | .04 | @ | .05½ |
| Manila No. 2 | .03 | @ | 04 |
| No. 2 Kraft | .03¾ | @ | .05½ |
| No. 1 Kraft | .05½ | @ | .06½ |
| Common Bogus | .03½ | @ | .04 |
| (Delivered Philadelphia) | | | |
| News Print Rolls | 62.00 | @ | — |
| Straw Board | 52.50 | @ | 70.00 |
| News Board | 37.50 | @ | 38.50 |
| Chip Board | 32.50 | @ | 35.00 |
| Wood Pulp Board | 85.00 | @ | 95.00 |
| Binder Boards— | | | |
| No. 1, per ton | 75.00 | | |
| No. 2, per ton | 70.00 | | |
| Carload lots | 68.00 | @ | 70.00 |
| Tarred Felts— | | | |
| Regular | 55.50 | @ | 57.00 |
| Slaters (per roll) | .84 | @ | .94 |
| Best Tarred, 1-ply (per roll) | 1.95 | @ | 2.10 |
| Best Tarred, 2-ply (per roll) | 1.50 | @ | 1.60 |
| Best Tarred, 3-ply | 2.00 | @ | 2.25 |

### Domestic Rags (New)
(Price to Mill, f. o. b. Phila.)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New White, No. 1 | .10½ | @ | .11 |
| New White, No. 2 | .07 | @ | .07½ |
| Light Silesias | .07 | @ | .07½ |
| Silesias, No. 1 | .07 | @ | .09 |
| Black Silesia, soft | .05 | @ | .05½ |
| New Unbleached | .10½ | @ | .11 |
| Washable, No. 1 | .04½ | @ | .05 |
| Blue Overall | .07½ | @ | .08 |
| Cottons—According to grades— | | | |
| Washable, No. 2 | .03 | @ | — |
| New Blue | .03 | @ | .03¼ |
| Fancy | .05¼ | @ | .06 |
| New Black Soft | .05 | @ | .05¾ |
| New Light Seconds | .02½ | @ | .03 |
| New Dark Seconds | 1.85 | @ | 2.00 |
| Khaki Cuttings— | | | |
| No. 1 O. D. | .05½ | @ | .05¾ |
| No. 2 Mixed | .04½ | @ | .04¾ |
| Corduroy | .03 | @ | .03½ |
| New Canvas | .08½ | @ | .09 |
| New Black Mixed | .03¾ | @ | .04½ |

### Bagging
(F. o. b. Phila.)

| | | | |
|---|---|---|---|
| Gunny, No. 1— | | | |
| Foreign | 1.50 | @ | 1.60 |
| Domestic | 1.75 | @ | — |
| Manila Rope | 3.50 | @ | 4.00 |
| Sisal Rope | 1.50 | @ | — |
| Mixed Rope | 1.10 | @ | 1.25 |
| Scrap Burlaps— | | | |
| No. 1 | 1.50 | @ | 1.60 |
| No. 2 | 1.10 | @ | 1.20 |
| Wool Tares, heavy | 3.00 | @ | — |
| Mixed Strings | 1.15 | @ | 1.25 |
| No. 1, New Light Burlap | 2.50 | @ | 2.75 |
| New Burlap Cuttings | 2.00 | @ | 2.25 |

### Old Papers
(F. o. b. Phila.)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White | 2.65 | @ | 2.75 |
| No. 2 Hard White | 2.30 | @ | 2.50 |
| No. 1 Soft White | 2.25 | @ | 2.50 |
| No. 2 Soft White | 1.40 | @ | 1.60 |
| No. 1 Mixed | 1.40 | @ | 1.50 |
| No. 2 Mixed | .80 | @ | .90 |
| Solid Ledger Stock | 1.55 | @ | 1.65 |
| Writing Paper | 1.00 | @ | 1.15 |
| No. 1 Books, heavy | 1.15 | @ | 1.20 |
| No. 2 Books, light | .90 | @ | .100 |
| No. 1 New Manila | 2.30 | @ | 2.50 |
| No. 1 Old Manila | 1.50 | @ | 1.60 |
| Print Manila | .40 | @ | .50 |
| Container Manila | .30 | @ | .35 |
| Old Kraft | 1.40 | @ | 1.50 |
| Common Paper | .15 | @ | .20 |
| No. 1 Mixed Paper | .15 | @ | .20 |
| Straw Board, Chip | .35 | @ | .40 |
| Binders Board, Chip | .35 | @ | .45 |
| Overissue News | .40 | @ | .45 |
| Old Newspaper | .25 | @ | .30 |

### Domestic Rags (Old)

| | | | |
|---|---|---|---|
| White, No. 1— | | | |
| Repacked | 4.25 | @ | 4.50 |
| Miscellaneous | 3.50 | @ | 3.75 |
| M. G. | 7.00 | @ | — |
| Thirds and Blues— | | | |
| Repacked | 2.00 | @ | 2.25 |
| Miscellaneous | 1.60 | @ | 1.80 |
| Black Stockings (Export) | 3.90 | @ | 4.25 |
| Roofing Stock— | | | |
| Foreign No. 1 | 1.65 | @ | 1.75 |
| Repacked | .01½ | @ | .01¾ |
| No. 2 | 1.20 | @ | 1.25 |
| No. 3 (Rooting) | 1.10 | @ | 1.20 |
| No. 4 | 1.00 | @ | 1.15 |
| No. 5A | .75 | @ | .85 |
| B | .65 | @ | .75 |
| C | .65 | @ | .75 |

## BOSTON

### Paper
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Ledgers— | | | |
| Sulphite | .07½ | @ | .12½ |
| Rag content | .15 | @ | .30 |
| All rag | .38 | @ | .52½ |
| Bonds— | | | |
| Sulphite | .06½ | @ | .11½ |
| Rag content | .15 | @ | .30 |
| All rag | .36½ | @ | .65 |
| Writings | .06½ | @ | .20 |
| Superfines | .11 | @ | .31 |
| Book, Super | .06 | @ | .09 |
| Book, M. F. | .05½ | @ | .08½ |
| Book, Coated | .08½ | @ | .18 |
| Coated Litho | .09 | @ | .12 |
| Label | .09½ | @ | .15 |
| Jute Manila No. 1 | .11 | @ | .13 |
| Manila, Sul. No. 1 | .04¾ | @ | .06½ |
| Manila, Sul. No. 2 | .03¾ | @ | .04½ |
| No. 1 Kraft | .06¼ | @ | .06½ |
| No. 2 Kraft | .03½ | @ | .04½ |
| Common Bogus | .02 | @ | .02¾ |
| Delivered New England points | | | |
| News Print Rolls | 61.50 | @ | — |
| Straw Boards, rolls .009 | | | 52.50 |
| Straw Board in Sheets, basis 35s to 70s | 54.50 | @ | 55.00 |
| Filled News Board | 37.50 | @ | 40.00 |
| Chip Board | 35.00 | @ | 37.50 |
| Single Manila Lined Chip | 47.50 | @ | 52.50 |
| Single White, Patent Coated Newsboard | | | |
| Bender | 65.00 | @ | 80.00 |
| Wood Pulp Board | 75.00 | @ | 80.00 |
| Binder Boards | 70.00 | @ | 75.00 |
| (F. o. b. Mill) | | | |
| Tarred Felts— | | | |
| Regular, carload lots | 65.00 | @ | — |

### Old Papers
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White | 3.25 | @ | 3.75 |
| No. 2 Hard White | 2.60 | @ | 2.90 |
| No. 1 Soft White | 2.40 | @ | 2.50 |
| No. 1 Mixed | 1.10 | @ | 1.15 |
| No. 2 Mixed | .85 | @ | .90 |
| Solid Ledger Stock | — | @ | 2.25 |
| No. 1 Books, Heavy | 1.50 | @ | 1.55 |
| No. 1 Books, Light | — | @ | 1.15 |
| Manila Env. Cuttings | 2.00 | @ | 2.25 |
| No. 1 Old Manila | .90 | @ | 1.00 |
| White Blank News | 1.60 | @ | 1.70 |
| Old Kraft | — | @ | 1.50 |
| Print Manila | .80 | @ | .90 |
| No. 1 Mixed Paper | .20 | @ | .25 |
| Overissue News | .45 | @ | .55 |
| Old Newspapers | .40 | @ | .45 |
| Box Board, Chip | .45 | @ | .50 |
| Corrugated Papers | — | @ | .35 |

### Bagging
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Gunny No. 1— | | | |
| Foreign | 1.40 | @ | 1.55 |
| Manila Rope— | | | |
| Foreign | — | @ | 4.00 |
| Domestic | — | @ | 4.50 |
| Transmission Rope | 2.25 | @ | 2.50 |
| Mixed Strings | .85 | @ | .95 |
| Jute Wool Strings | 1.00 | @ | 1.05 |
| Jute Carpet Threads | 1.05 | @ | 1.15 |
| Scrap Burlaps | — | @ | 1.35 |
| Scrap Sisal | 1.55 | @ | 1.65 |
| Scrap Sisal for shredding | 1.75 | @ | 2.00 |
| Wool Tares, heavy | 1.60 | @ | — |
| New Burlap Cutting | 1.75 | @ | 2.00 |
| Australian Wool Pouches | 2.50 | @ | 3.00 |

### Domestic Rags (New)
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New White No. 1 | .08½ | @ | — |
| Silesias No 1 | .06 | @ | .06¼ |
| New Unbleached | .09¾ | @ | — |
| Fancy | .04 | @ | .04½ |
| Washable | .04 | @ | .04½ |
| Cottons—According to grades | | | |
| Blue Overalls | .06¼ | @ | .06¾ |
| New Black, soft | .04 | @ | .04¾ |
| Khaki Cuttings | .04 | @ | .04¾ |
| O. D. Khaki | .05 | @ | — |
| Corduroy | .03 | @ | .03¼ |
| New Canvas | .08 | @ | .08¼ |

### Domestic Rags (Old)
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Canvas | .04½ | @ | — |
| White No. 1— | | | |
| Repacked | 4.75 | @ | 5.25 |
| Miscellaneous | 5.00 | @ | — |
| White No. 2— | | | |
| Repacked | .04½ | @ | .03 |
| Miscellaneous | .03½ | @ | .04 |
| Twos and Blues | 2.75 | @ | 3.00 |
| Thirds and Blues— | | | |
| Repacked | 2.25 | @ | 2.50 |
| Miscellaneous | 1.75 | @ | 1.90 |
| Black Stockings | — | @ | 4.00 |
| Roofing Stock— | | | |
| No. 1 | 1.65 | @ | 1.75 |
| No. 2 | 1.40 | @ | 1.50 |
| No. 3 | 1.05 | @ | 1.10 |
| No. 4 | 1.10 | @ | 1.15 |

### Foreign Rags
(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Dark Cottons | 1.40 | @ | 1.45 |
| New No. 1 Shirt Cuttings | 9.00 | @ | 9.50 |
| Dutch Blues | 2.00 | @ | 2.12½ |
| Lace Curtains | 4.50 | @ | 4.75 |
| New Checks & Blues | 4.25 | @ | 4.60 |
| Old Fustians | 1.90 | @ | 2.00 |
| Old Linsey Garments | 1.80 | @ | 1.85 |

## TORONTO

### Paper
(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Bond— | | | |
| No. 1 Sulphite | .12½ | @ | — |
| No. 2 Sulphite | .10¾ | @ | — |
| No. 1 Colored | .13½ | @ | — |
| No. 2 Colored | .11¼ | @ | — |
| Ledgers (sulphite) | — | @ | — |
| Ledgers, No. 1 | .36 | @ | — |
| Ledgers, No. 2 | .27 | @ | — |
| Writing | .09½ | @ | .10 |
| Book— | | | |
| No. 1 M. F. (carloads) | 7.50 | @ | — |
| No. 2 M. F. (carloads) | 7.25 | @ | — |
| No. 3 M. F. (carloads) | 7.00 | @ | — |
| No. 1 S. C. (carloads) | 8.00 | @ | — |
| No. 2 S. C. (carloads) | 7.75 | @ | — |
| No. 3 S. C. (carloads) | 7.50 | @ | — |
| No. 1 Coated and Litho | 13.25 | @ | — |
| No. 2 Coated and Litho | 12.25 | @ | — |
| No. 3 Coated and Litho | 11.50 | @ | — |
| Coated tinted | 14.50 | @ | — |
| Wrapping— | | | |
| Rag Brown | 4.95 | @ | — |
| White Wrap | 5.25 | @ | — |
| "B" Manila | 5.80 | @ | — |
| No. 1 Manila | 6.65 | @ | — |
| Fiber | 6.65 | @ | — |
| Kraft, M. F. | 7.00 | @ | — |
| White, No. 2 | 2.00 | @ | 2.25 |

(Delivered Toronto)

| | | | |
|---|---|---|---|
| News, per ton— | | | |
| Rolls (contract) | 61.50 | @ | 62.00 |
| Sheets | 67.00 | @ | — |

### Pulp
(F. o. b. Mill)

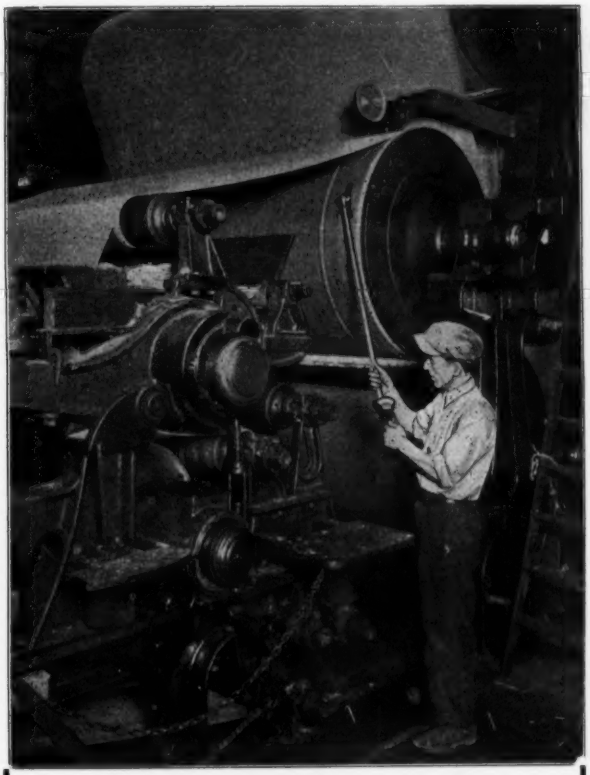
| | | | |
|---|---|---|---|
| Ground Wood | 31.00 | @ | 32.00 |
| Sulphite easy bleaching | 60.00 | @ | — |
| Sulphite news grade | 60.00 | @ | — |
| Sulphite, bleached | 77.00 | @ | 78.00 |
| Sulphate | 60.00 | @ | — |

### Old Waste Paper
(In carload lots, f. o. b. Toronto)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| White Env. Cut | 3.00 | @ | — |
| Soft White Book Shavings | 2.85 | @ | — |
| White Blk. News | 1.60 | @ | — |
| Book and Ledger— | | | |
| Flat Magazine and Book Stock (old) | 1.40 | @ | — |
| Light and Crumpled Book Stock | 1.25 | @ | — |
| Ledgers and Writings | 1.50 | @ | — |
| Solid Ledgers | 1.50 | @ | — |
| Manilas— | | | |
| New Manila Cut | 1.50 | @ | — |
| Printed Manilas | 1.00 | @ | — |
| Kraft | 2.25 | @ | — |
| News and Scrap— | | | |
| Strictly Overissue | .85 | @ | — |
| Strictly Folded | .85 | @ | — |
| No. 1 Mixed Paper | .65 | @ | — |

### Domestic Rags
(Price to mills, f. o. b. Toronto)

| | | | |
|---|---|---|---|
| No. 1 White Shirt Cuttings | .09¾ | @ | .10 |
| Fancy Shirt Cuttings | .06 | @ | .06¼ |



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**The Cambridge Surface Pyrometer**

is indispensable to efficient dryer operation.

It enables the operator to quickly and accurately determine the surface temperature of any dryer or calender roll. Readings are indicated almost instantaneously after contact. The easily read scale is calibrated directly in degrees Fahrenheit.

Two models are available. The Hand Model for readily accessible rolls and the Extension Model, shown in use above, for hard-to-reach surfaces. The usual range is 50° - 400° but special ranges can be furnished.

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PAPER TRADE JOURNAL
ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-EIGHTH YEAR

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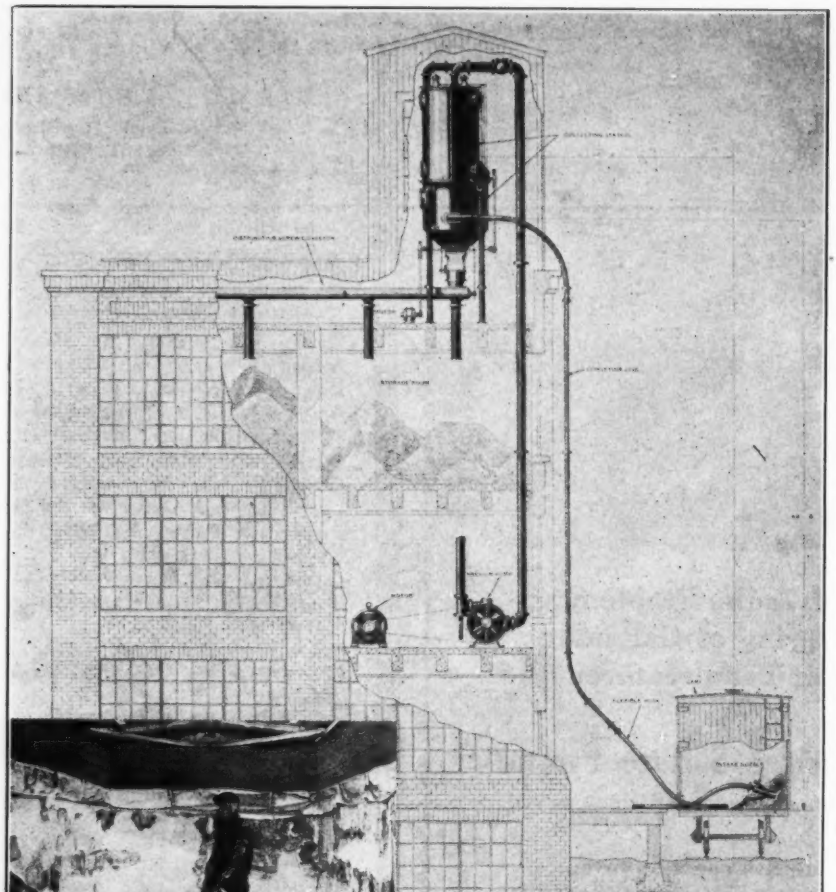
# CLAY

## PULVERIZED AND AIR WASHED



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Our older plants use water—our new and modern plants employ air.

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